

11.1 Affected Environment

This section describes the regulatory and physical environmental setting for noise in the Plan Area.

11.1.1 Regulatory Setting

Federal and State

Noise sources within the Plan Area are regulated at the local level. There are no applicable federal or state regulations.

Local

Butte County

Butte County Code of Ordinances

The Butte County Code of Ordinances, Chapter 24, Zoning, Section 24-153 states as follows.

Maximum Sound Emissions. Maximum sound emissions for any use shall not exceed equivalent sound pressure levels in decibels, A-weighted scale, for any one hour as stipulated in Table 24-153-1 (Maximum Allowable Noise Exposure). These maximums are applicable beyond any property lines of the property containing the noise.

Table 24-153-1. Maximum Allowable Noise Exposure [1] [2] [3] [4]

	Daytime 7 a.m. – 7 p.m.		Evening 7 p.m. – 10 p.m.		Night 10 p.m. – 7 a.m.	
Noise Level Description	Urban	Rural	Urban	Rural	Urban	Rural
	Zone Type					
Hourly Leq, dB	55	50	50	45	45	40
Maximum Level, dB	70	60	60	55	55	50

Notes:

[1] "Non-Urban" zones are Agriculture, Timber Mountain, Timber Preserve, Resource Conservation, Foothill Residential and Rural Residential. All other zones are considered "Urban" zones.

[2] Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).

[3] The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.

[4] In urban zones, the exterior noise level standard shall be applied to the property line of the receiving property. In rural zones, the exterior noise level standard shall be applied at a point 100 feet away from the residence. The above standards shall be measured only on property containing a noise sensitive land use. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all affected property owners and approved by the County.

Source: Butte County Zoning Ordinance

- B. Exemptions. Local noise standards set forth in this section do not apply to the following situations and sources of noise provided standard, reasonable practices are being followed:
 - 1. Emergency equipment operated on an irregular or unscheduled basis;
 - 2. Warning devices operated continuously for no more than five minutes;
 - 3. Bells, chimes or carillons;
 - 4. Non-electronically amplified sounds at sporting, amusement and entertainment events;
 - 5. Construction site sounds between 7:00 a.m. and 7:00 p.m.;
 - 6. Lawn and plant care machinery fitted with correctly functioning sound suppression equipment and operated between 7:00 a.m. and 8:00 p.m.;
 - 7. Aircraft when subject to federal or state regulations; and
 - 8. Agricultural equipment when operated on property zoned for agricultural activities.
- C. Exceptions. Upon written application from the owner or operator of an industrial or commercial noise source, the review authority, as part of a permit approval, may conditionally authorize exceptions to local noise emission standards, based upon analysis supported by Development Services, in the following situations:
 - 1. Infrequent noise;
 - 2. Noise levels at or anywhere beyond the property lines of the property of origin when exceeded by an exempt noise in the same location; and
 - 3. f, after applying best available control technology, a use existing prior to the effective date of this Zoning Ordinance is unable to conform to the standards established by this section.

Butte County General Plan Health and Safety Element

California law requires that general plans include a noise element and safety element. Butte County's General Plan 2030 incorporates the noise element requirement in its Health and Safety Element (Butte County 2012). A main goal of the Health and Safety Element is to maintain an acceptable noise environment throughout the county. The Health and Safety Element also requires that construction activities located within 1,000 feet of residences be limited to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays and non-holidays.

City of Biggs

City of Biggs Municipal Code

The City of Biggs Municipal Code restricts construction activity to between the hours of 6:00 a.m. and 7p.m. across a residential zoned or a commercial zoned real property boundary, except for emergency work being performed by a public agency or a public utility.

City of Biggs General Plan Noise Element

The City of Biggs General Plan Noise Element establishes maximum allowable noise exposure levels for noise-sensitive land uses (Table 11-1) and noise level performance standards for non-transportation noise sources (Table 11-2). Examples of non-transportation noise sources are construction equipment, industrial operations, outdoor recreation facilities, heating, ventilation, and air conditioning (HVAC) units; and loading docks.

Table 11-1. City of Biggs General Plan Noise Element Maximum Allowable Noise Exposure

Land Use	Outdoor Areas ^a L _{dn} /CNEL, dB	Interior Spaces	
		L _{dn} /CNEL, dB	L _{eq} , dB ^b
Residential	65 ^c	45	–
Transient lodging	–	45	–
Hospitals, nursing homes	65 ^c	45	–
Theaters, auditoriums, music halls	–	–	35
Churches, meeting halls	65 ^c	–	40
Office buildings	–	–	45
Schools, libraries, museums	65 ^c	–	45
Playgrounds, neighborhood parks	70	–	–

Source: City of Biggs 2014:N-12, N-13.

L_{dn} = day-night level.

L_{eq} = equivalent sound level.

CNEL = community noise equivalent level.

dB = decibel.

^a Noise standards are to be applied at outdoor activity areas with the greatest exposure to the noise source. When it is not practical to mitigate exterior noise levels at the patios of balconies of multi-family dwellings, a common area or on-site park may be designated as the outdoor activity area. For noise-sensitive land uses that do not include outdoor activity areas, only the interior noise standard shall apply.

^b As determined for a typical worst-case hour during periods of use.

^c Where it is not possible to reduce noise in outdoor activity areas to 65 dB L_{dn} /CNEL or less using all feasible noise reduction measures, an exterior noise level of up to 70 dB L_{dn}/CNEL may be allowed provided that interior noise levels are in compliance with maximum allowable levels listed this table.

Table 11-2. City of Biggs General Plan Noise Element Noise Level Performance Standards Non-Transportation Sources

Noise Level Descriptor (dBA)	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
Average-Hourly (L _{eq})	55	50
Intermittent Noise Level (L ₂ or L _{max})	75	65

Source: City of Biggs 2014:N-13.

Notes: 1. Noise level standards do not apply to mixed-use residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings) provided interior noise levels remain below 45 dB L_{dn}/CNEL.

2. In areas where the existing ambient noise level exceeds the established daytime or nighttime standard, the existing level shall become the respective noise standard and an increase of 3 dBA or more shall be significant. Noise levels shall be reduced 5 dBA if the existing ambient hourly L_{eq} is at least 10 dBA lower than the standards. 3. Transportation noise sources are defined as traffic on public roadways, railroad line operations, and aircraft in flight.

L_{dn} = day-night level.

L₂ = noise level exceeded 2% of the time.

L_{max} = maximum noise level.

dB = decibel.

dBA = A-weighted decibel.

CNEL = community noise equivalent level.

City of Gridley

City of Gridley Municipal Code

The City of Gridley Municipal Code Section 9.40.160 contains the following construction restrictions related to noise:

9.40.160 Construction or demolition—Generally.

It is unlawful and in violation of this chapter for any person to operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between the hours of seven P. M. and six A. M. on weekdays or at any time on Sundays or holidays. In such a manner that creates noise clearly audible across a residential zoned or a commercial zoned real property boundary, except for emergency work being performed by a public agency or a public utility

City of Gridley General Noise Element

The City of Gridley Noise Element sets forth land use compatibility standards for interior noise (Table 11-3) and performance standards for non-transportation noise (Table 11-4).

Table 11-3. Land Use Compatibility Standards for Interior Noise

Land Use	Maximum Allowable Interior Noise dBA CNEL
Residential and mixed use with residential component	45
Commercial—hotel, motel, transient lodging	45
School classrooms, libraries, churches	45
Hospitals, convalescent homes	45

Source: City of Gridley 2010.

Notes: The noise standards described in this table do not apply to bathrooms, toilets, closets, or corridors.

The acceptable interior noise level for other uses (offices, theaters, commercial, industrial) depends upon the specific nature of the indoor activity.

dBA = A-weighted decibel.

CNEL = community noise equivalent level.

Table 11-4. Noise Level Performance Standards for New Projects Affected by or Including Non-Transportation Noise Sources

Noise Level Descriptor	Daytime (dB) (7 a.m.–10 p.m.)	Nighttime (dB) (10 p.m.–7 a.m.)
Hourly average level (L_{eq})	60	45
Maximum equivalent levels (L_{max})	75	65

Source: City of Gridley 2010.

Notes: Each of the noise levels specified shall be lowered by 5 decibels for simple tone noises, noises consisting primarily of speech, or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings). The noise standard is to be applied at the property lines of the generating land use.

dB = decibel.

L_{eq} = equivalent sound level.

L_{max} = maximum sounds level.

The City of Gridley Noise Element also states that for purposes of noise analysis conducted pursuant to CEQA, the following thresholds of significance should be used.

- Where existing exterior noise levels are between 60 and 65 dBA¹ at outdoor activity areas of noise-sensitive uses, an increase of 3 dBA or greater is considered significant and requires mitigation to reduce noise to acceptable levels.
- Where existing exterior noise levels are greater than 65 dBA, at outdoor activity areas of noise-sensitive uses, an increase of 1.5 dBA or greater is considered significant and requires mitigation to reduce noise to acceptable levels.
- Where it is not possible to reduce noise in outdoor activity areas to 60 dBA or less using practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dBA may be allowed, provided that available exterior noise reduction measures have been implemented.

City of Chico

City of Chico Municipal Code

The City of Chico Noise Ordinance is the primary enforcement tool for the operation of locally regulated noise sources, such as construction activity or outdoor recreation facilities, and is set forth in Chapter 9.38 of the City's Municipal Code.

9.38.030 Residential property noise limits:

- A. No person shall produce, suffer or allow to be produced by human voice, machine, animal, or device, or any combination of same, on residential property, a noise level at any point outside of the property plane that exceeds, at any point outside of the property plane, seventy (70) dBA between the hours of seven a.m. and nine p.m. or sixty (60) dBA between the hours of nine p.m. and seven a.m.
- B. No person shall produce, suffer or allow to be produced by human voice, machine, animal, or devices or any combination of same, on multifamily residential property, a noise level more than sixty (60) dBA three feet from any wall, floor, or ceiling inside any dwelling unit on the same property, when the windows and doors of the dwelling unit are closed, except within the dwelling unit in which the noise source or sources may be located.

9.38.040 Commercial and industrial property noise limits: No person shall produce, suffer or allow to be produced by human voice, machine, animal, or device, or any combination of same, on commercial or industrial property, a noise level at any point outside of the property plane that exceeds seventy (70) dBA.

9.38.010 Declaration of policy: Except as otherwise provided in this chapter, no person shall produce, suffer or allow to be produced on public property, by human voice, machine, animal, or device, or any combination of same, a noise level that exceeds sixty (60) dBA at a distance of 25 feet or more from the source.

City of Chico General Plan Noise Element

The City of Chico General Plan Noise Element establishes maximum allowable noise exposure levels for noise-sensitive land uses (Table 11-5), and noise level performance standards for non-transportation noise sources (Table 11-6).

¹ dBA is an "A" weighted decibel, which relates the measurement of sound to the sensitivity of the human ear.

Table 11-5. City of Chico General Plan Noise Element Maximum Allowable Noise Levels from Transportation Noise Sources

Land Use	Outdoor Activity Areas ^a L _{dn} /CNEL, dB	Interior Spaces	
		L _{dn} /CNEL, dB	L _{eq} , dB ^b
Residential	65 ^c	45	–
Transient lodging	–	45	–
Hospitals, nursing homes	65 ^c	45	–
Theaters, auditoriums, music halls	–	–	35
Churches, meeting halls	65 ^c	–	40
Office buildings, commercial	–	–	45
Schools, libraries, museums	65 ^c	–	45
Playgrounds, parks	70	–	–

Source: City of Chico 2011.

L_{dn} = day-night level.

CNEL = community noise equivalent level.

dB = decibel.

^a Noise standards are to be applied at outdoor activity areas with the greatest exposure to the noise source. When it is not practical to mitigate exterior noise levels at the patios or balconies of multi-family dwellings, a common area or onsite park may be designated as the outdoor activity area. For noise-sensitive land uses that do not include outdoor activity areas, only the interior noise standard shall apply.

^b As determined for a typical worst-case hour during periods of use.

^c Where it is not possible to reduce noise in outdoor activity areas to 65 dB L_{dn}/CNEL or less using all feasible noise reduction measures, an exterior noise level of up to 70 dB L_{dn}/CNEL may be allowed provided that interior noise levels are in compliance with this table.

Table 11-6. City of Chico General Plan Noise Element Maximum Allowable Exterior Noise Levels from Non-Transportation Sources

Noise Level Descriptor	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
Hourly L _{eq} , dB	55	45
Maximum dB	75	65

Source: City of Chico 2011.

Notes: Noise levels are for planning purposes and may vary from the standards of the City's Noise Ordinance, which are for enforcement purposes.

Noise levels shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Noise level standards do not apply to mixed-use residential units established in conjunction with industrial or commercial uses provided interior noise levels remain below 45 dB L_{dn}/CNEL.

In areas where the existing ambient noise level exceeds the established daytime or nighttime standard, the existing level shall become the respective noise standard and an increase of 3 dBA or more shall be significant. Noise levels shall be reduced 5 dBA if the existing ambient hourly L_{eq} is at least 10 dBA lower than the standards.

Noise standards are to be applied at outdoor activity areas with the greatest exposure to the noise source. When it is not practical to mitigate exterior noise levels at patio or balconies of multi-family dwellings, a common area or onsite park may be designated as the outdoor activity area.

L_{eq} = equivalent sound level.

dB = decibel.

City of Oroville

City of Oroville Municipal Code

Chapter 13A of the Oroville Municipal Code limits construction activity to between the hours of 9:00 p.m. and 7:00 a.m. on weekdays and between 10:00 a.m. and 6:00 p.m. on weekends and holidays. In addition, no individual piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet from the source.

Oroville General Plan Health and Safety Element

The City of Oroville General Plan Noise Element establishes maximum allowable noise exposure levels for noise-sensitive land uses (Table 11-7), and noise level performance standards for non-transportation noise sources (Table 11-8).

Table 11-7. City of Oroville General Plan Noise Element Maximum Allowable Noise Exposure to Transportation Noise Sources

Land Use	Exterior Noise Level Standard for Outdoor Activity Areas ^a <i>L_{dn}</i> /CNEL, dB	Interior Noise Level Standard	
		<i>L_{dn}</i> /CNEL, dB	<i>L_{eq}</i> , dB ^b
Residential	60 ^c	45	–
Transient lodging	60 ^c	45	–
Hospitals, nursing homes	60 ^c	45	–
Theaters, auditoriums, music halls	–	–	35
Churches, meeting halls	60 ^c	–	40
Office buildings	–	–	45
Schools, libraries, museums	–	–	45
Playgrounds, neighborhood parks	70	–	–

Source: City of Oroville 2009.

L_{dn} = day-night level.

CNEL = community noise equivalent level.

dB = decibel.

^a Where the location of outdoor activity areas is unknown, the exterior noise-level standard shall be applied to the property line of the receiving land use.

^b As determined for a typical worst-case hour during periods of use.

^c Where it is not possible to reduce noise in outdoor activity areas to 60 dB *L_{dn}*/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB *L_{dn}*/CNEL may be allowed, provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 11-8. City of Oroville General Plan Noise Element Maximum Allowable Noise Exposure to Non-Transportation Sources

Land Use	Noise Level Descriptor	Exterior Noise Level Standard (Applicable at Property Line)		Interior Noise Level Standard	
		Daytime (7:00 a.m.– 10:00 p.m.)	Nighttime (10:00 p.m.– 7:00 a.m.)	Daytime (7:00 a.m.– 10:00 p.m.)	Nighttime (10:00 p.m.– 7:00 a.m.)
Residential	L _{eq}	50	45	40	35
	L _{max}	70	65	60	55
Transient lodging, hospitals, nursing homes	L _{eq}	–	–	40	35
	L _{max}	–	–	60	35
Theaters, auditoriums, music halls	L _{eq}	–	–	35	35
Churches, meeting halls	L _{eq}	–	–	40	40
Office buildings	L _{eq}	–	–	45	–
Schools, libraries	L _{eq}	–	–	45	–
Playgrounds, parks	L _{eq}	65	–	–	–

Source: City of Oroville 2009.

Notes: Each of the noise levels specified above shall be lowered by 5dB for simple tone noises, which are noises consisting primarily of speech, music or recurring impulsive noises. These noise-level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwelling).

L_{eq} = equivalent sound level.

L_{max} = maximum sound level.

11.1.2 Environmental Setting

This section describes noise, vibration, and noise-sensitive land uses and discusses the existing noise environment in the Plan Area.

Noise Fundamentals

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level. Although the dB scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise

measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written as dBA and referred to as A-weighted decibels. Table 11-9 provides definitions of sound measurements and other terminology used in this section, and Table 11-10 summarizes typical A-weighted sound levels for different noise sources.

Table 11-9. Definition of Sound Measurements

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Maximum Sound Level (L_{max})	The maximum sound level measured during the measurement period.
Minimum Sound Level (L_{min})	The minimum sound level measured during the measurement period.
Equivalent Sound Level (L_{eq})	The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.
Percentile-Exceeded Sound Level (L_{xx})	The sound level exceeded “x” percent of a specific time period. L_{10} is the sound level exceeded 10% of the time.
Day-Night Level (L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Peak Particle Velocity (Peak Velocity, or PPV)	A measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches/sec.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

In general, human sound perception is such that a change in sound level of 1 dB typically cannot be perceived by the human ear, a change of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L_{10} , L_{20}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

For a point source, such as a stationary compressor or construction equipment, sound attenuates based on geometry at rate of 6 dB per doubling of distance. For a line source such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance (California

Department of Transportation 2009). Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface, such as grass attenuates at a greater rate than sound that travels over a hard surface such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers, such as buildings and topography that block the line of sight between a source and receiver, also increase the attenuation of sound over distance.

Table 11-10. Typical A-Weighted Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock band
Jet flyover at 1,000 feet	—100—	
Gas lawnmower at 3 feet	—90—	
Diesel truck at 50 feet at 50 mph	—80—	Food blender at 3 feet Garbage disposal at 3 feet
Noisy urban area, daytime	—70—	Vacuum cleaner at 10 feet Normal speech at 3 feet
Gas lawnmower, 100 feet	—60—	
Commercial area		Large business office
Heavy traffic at 300 feet	—50—	Dishwasher in next room
Quiet urban daytime	—40—	Theater, large conference room (background)
Quiet urban nighttime	—30—	Library
Quiet suburban nighttime	—20—	Bedroom at night, concert hall (background)
Quiet rural nighttime	—10—	Broadcast/recording studio
	—0—	

Source: California Department of Transportation 2009.

Vibration

Operation of heavy construction equipment, particularly pile driving and other impulsive devices, such as pavement breakers, creates seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance will result in different vibration levels containing different

frequencies and displacements. In all cases, vibration amplitudes will decrease with increasing distance.

As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second [in/sec]) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV). Table 11-11 summarizes typical vibration levels generated by construction equipment (Federal Transit Administration 2006).

Table 11-11. Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 feet
Pile driver (impact)	0.644 to 1.518
Pile drive (sonic)	0.170 to 0.734
Vibratory roller	0.210
Hoe ram	0.089
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Source: Federal Transit Administration 2006.	

Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil conditions through which the vibration is traveling. The following equation can be used to estimate the vibration level at a given distance for typical soil conditions. PPV_{ref} is the reference PPV at 25 feet (from Table 11-11):

$$PPV = PPV_{ref} \left(\frac{25}{distance} \right)^{1.5}$$

Table 11-12 summarizes guidelines vibration annoyance potential criteria suggested by the California Department of Transportation (Caltrans) (California Department of Transportation 2004).

Table 11-12. Guideline Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation 2004.

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls.
Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity.
in/sec = inches per second.

Table 11-13 summarizes guideline vibration damage potential criteria suggested by Caltrans (California Department of Transportation 2004).

Table 11-13. Guideline Vibration Damage Potential Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation 2004.

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls.
Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity.
in/sec = inches per second.

Noise-Sensitive Land Uses

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities.

Noise-sensitive uses in the Plan Area are located primarily in the main areas of development, which include the cities of Biggs, Gridley, Chico, and Oroville. Rural residences and recreational uses are scattered throughout the unincorporated portion of the Plan Area.

Existing Noise Environment

There are several primary sources of noise in the Plan Area. Mobile noise sources are those related to transportation and include roadway traffic, railroads, and airports. By far the most prevalent noise source is roadway traffic, which is a constant source of noise compared to the intermittent sounds generated by railroads and airports. Stationary sources of noise in the area include aggregate mines, natural gas extraction facilities, recycling facilities, solid waste transfer stations, agricultural activities, general service commercial and light industrial uses, recreational uses, and parks and school playing fields.

The existing noise environment in the Plan Area can be characterized generally by the area's level of development. The level of development and ambient noise levels tend to be closely correlated. Areas that are not urbanized are relatively quiet, while areas more urbanized are noisier as a result of roadway traffic, industry, and other human activities. Table 11-14 summarizes typical ambient noise levels based on level of development.

Table 11-14. Population Density and Associated Ambient Noise Levels

	L _{dn}
Rural	40-50
Small town or quiet suburban residential	50
Normal suburban residential	55
Urban residential	60
Noisy urban residential	65
Very noisy urban residential	70
Downtown, major metropolis	75-80
Area adjoining freeway or near major airport	80-90

Source: Hoover and Keith 2000.
L_{dn} = day-night level.

11.2 Environmental Consequences

This section incorporates by reference the impact determinations presented for noise effects in the Local Agencies' general plan EIRs (as described in more detail in Chapter 3, Section 3.3, *Resource Chapter Organization and NEPA/CEQA Requirements*).² The significance findings and mitigation measures of each of the general plan EIRs are compiled in Appendix C. The Lead Agencies have reviewed these analyses and found them to be appropriate for the purposes of this EIS/EIR.

11.2.1 Methods for Impact Analysis

The BRCP would not provide individual project approvals or entitlements for any private or public development or infrastructure projects. Accordingly, this EIS/EIR does not provide CEQA or NEPA

² These previous CEQA documents are available collectively for public review at the BCAG offices (2580 Sierra Sunrise Terrace, Suite 100 Chico, CA 95928-8441). Individual general plans and EIRs are also available at each of the respective land use agencies.

coverage for individual covered activities and does not function as a *programmatic* or *umbrella* CEQA or NEPA document for regional development and infrastructure projects. The BRCP EIS/EIR evaluates only the adverse and beneficial environmental effects associated with the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. Accordingly, the methods for analyzing direct impacts on noise are tailored to evaluate the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. This EIS/EIR also incorporates the impact determinations of the Local Agencies' general plan EIRs to analyze indirect impacts on noise.

In adopting the EIRs for the local general plans, each Local Agency determined that the programmatic impacts resulting from increased transportation noise (traffic, train, or aircraft) causing a permanent increase in ambient noise would be significant and unavoidable even with the implementation of general plan policies and the adoption of identified mitigation measures within their jurisdictions (i.e., inside the UPAs). The City of Chico determined there would also be a significant and unavoidable impact resulting from stationary sources. Other noise-related impacts related to implementation of the Local Agency general plans were found to be less than significant. It is assumed that all covered activities approved by the Local Agencies would be consistent with the policies of the respective general plans and would be subject to any mitigation measures identified such that impacts would be adequately mitigated to the extent identified in the general plan EIRs

The methodology for evaluating impacts on noise also incorporates standard best management practices (BMPs) required by Caltrans during construction of transportation projects. These BMPs are summarized in Appendix D. The analysis assumes that Caltrans would implement these BMPs, when appropriate, during transportation projects within the Plan Area.

Water and irrigation district activities have not been analyzed in previous CEQA documents. These activities include: rerouting of existing canals, replacement of water delivery structures, replacement of large weirs, mowing and trimming vegetation along service roads, and removing aquatic vegetation from canals. Potential impacts on noise could occur primarily during construction or maintenance of these activities. Noise and vibration-generating activities specifically associated with implementation of activities outside of the UPAs (e.g., water and irrigation districts' activities) would include the following.

- Construction of canals.
- Weirs.
- Water delivery structures.
- Moving and trimming vegetation along service roads.
- Maintenance activities to remove aquatic vegetation from canals.

Potential noise impacts could occur during construction or maintenance activities.

Impacts of Conservation Strategy Implementation

Noise and vibration-generating activities specifically associated with implementing the conservation strategy include the following.

- Operation of construction or other equipment associated with habitat management and enhancement, habitat restoration, general maintenance, avoidance and minimization measures, and species population enhancement.

- Use of construction equipment for habitat enhancement, vegetation removal, ground surface grading and recontouring, installation of irrigation systems, construction of facilities and roads, and in-water activities.
- Truck traffic on public roads associated with hauling excavated material and fill/cover material to and from restoration or other construction sites within the BRCP conservation lands.
- Maintenance activities that would require the use of trucks or off-road vehicles.

The assessment of potential construction noise levels was based on methodology developed by FHWA (2006). Noise levels produced by commonly used construction equipment are summarized below in Table 11-15. Individual types of construction equipment are expected to generate maximum noise levels ranging from 74 to 85 dBA at a distance of 50 feet. The construction noise level at a given receiver depends on the type of construction activity, the noise level generated by that activity, and the distance and shielding between the activity and noise-sensitive receivers.

Utilization factors for construction noise are used in the analysis to develop L_{eq} noise exposure values. The L_{eq} value accounts for the energy average of noise over a specified interval (usually 1 hour), so a utilization factor represents the amount of time a type of equipment is used during the interval.

Table 11-15. Commonly Used Construction Equipment Noise Emission Levels

Equipment Listed for Southport Project	Acoustical use Factor (%)	L_{max} at 50 Feet (dBA)	L_{eq} at 50 Feet (dBA)
Compactor (ground)	20	83	76
Dozer	40	82	78
Dump Truck	40	76	72
Excavator	40	81	77
Flat Bed Truck	40	74	70
Front End Loader	40	79	75
Grader	40	85	81
Paver	50	77	74
Pickup Truck	40	75	71
Scraper	40	84	80
Crane	16	81	73

Source: Federal Highway Administration 2006.

L_{eq} = equivalent sound level.

L_{max} = maximum sounds level.

dBA = A-weighted decibel.

11.2.2 Significance Criteria

In accordance with Appendix G of the State CEQA Guidelines, the action alternatives would be considered to have a significant effect if they would result in any of the conditions listed below.

- Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.

- Expose persons to or generate excessive groundborne vibration or groundborne noise levels.
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- Be located within an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels.
- Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels.

11.2.3 Impacts and Mitigation Measures

Alternative 1—No Action (No Plan Implementation)

As discussed in Chapter 2, Section 2.3.1, *Alternative 1—No Action (No Plan Implementation)*, under Alternative 1, project proponents would apply for permits on a project-by-project basis, without a coordinated and comprehensive effort to minimize and mitigate biological impacts through the BRCP. Under Alternative 1, urban development and public infrastructure projects would continue to occur pursuant to the approved general plans of the Local Agencies and BCAG's regional plan(s). These include residential, commercial, and industrial development as well as construction, maintenance, and use of urban infrastructure, parks, recreational facilities, public services, and similar types of urban land uses. Other activities that would occur under Alternative 1 are construction and maintenance of public infrastructure projects outside of urban areas, including public infrastructure projects in and over streams (e.g. bridge replacements). No regional conservation strategy or conservation measures would be implemented; therefore, impacts related to noise that are associated with the conservation strategy and conservation measures would not occur.

Impact NOI-1: Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies (NEPA: less than significant; CEQA: less than significant)

The Local Agencies determined that activities that would occur under the general plans would result in less-than-significant impacts to exposing persons to or generating noise levels in excess of local standards or noise ordinances. Under Alternative 1, noise from traffic, trains, and aircraft would exceed 60 L_{dn} throughout the Plan Area in the future. However, the Local Agencies determined that the various general plan goals, objectives, and actions would restrict noise from transportation sources and would reduce the impacts to a less-than-significant level. In addition, infrastructure projects undertaken by Caltrans would be required to comply with noise restrictions summarized in Appendix D. Construction and recurring maintenance projects undertaken by water and irrigation districts are expected to be located away from sensitive receptors to noise because they would be primarily performed in agricultural or open space areas. Therefore, there is a low potential for rural residences to be located adjacent to these activities and to be exposed to excessive noise. Therefore, these activities are not anticipated to expose persons or generate noise levels in excess of established standards.

NEPA Determination: Alternative 1 could expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance; however, because the various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities, the impact would be less than significant. No mitigation is required.

CEQA Determination: Alternative 1 could expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance; however, because the various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities, the impact would be less than significant. No mitigation is required.

Impact NOI-2: Expose persons to or generate excessive groundborne vibration or groundborne noise levels (NEPA: less than significant; CEQA: less than significant)

The Local Agencies determined that activities that would occur under implementation of the general plans would result in less-than-significant impacts related to exposing persons to or generating excessive groundborne vibration or groundborne noise levels. Under Alternative 1, groundborne vibration could result from high-impact construction activities throughout the Plan Area. In addition, the development of noise-sensitive land uses near sources of existing groundborne vibration would occur. However, the Local Agencies determined the various general plan goals, objectives, and actions address the exposure of noise-sensitive land uses to groundborne vibration and would reduce impacts to below the level of significance. In addition, infrastructure projects undertaken by Caltrans would be required to comply with groundborne vibration guidelines summarized in Appendix D. Construction and recurring maintenance projects undertaken by water and irrigation districts would be required to comply with the local restrictions of the County or jurisdiction where the work would be performed. Therefore, these activities are not anticipated to expose persons or generate groundborne vibration levels in excess of established standards.

NEPA Determination: Alternative 1 could expose persons to or generate groundborne vibration levels in excess of standards established in a local general plan or noise ordinance depending on where the groundborne vibration is in relation to existing sensitive receptors; however, because the various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities, the impact would be less than significant. No mitigation is required.

CEQA Determination: Alternative 1 could expose persons to or generate groundborne vibration levels in excess of standards established in a local general plan or noise ordinance depending on where the groundborne vibration is in relation to existing sensitive receptors; however, because the various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities the impact would be less than significant. No mitigation is required.

Impact NOI-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The Local Agencies determined that implementation of the general plans would result in a significant and unavoidable impact regarding a substantial permanent increase in noise related to transportation noise, and this increase could affect noise-sensitive land uses. Implementation of the various general plans would allow increased development that would result in more traffic on roadways throughout the Plan Area. Implementation of the goals, policies, and actions in the general plans include noise-reducing measures that would help lessen this impact. The feasibility of implementing these measures would be determined on a project-by-project basis; however, the

Local Agencies determined it may not be possible to fully mitigate traffic, train, and aircraft noise in all areas. Caltrans infrastructure projects would contribute to the permanent increase in ambient noise levels caused by transportation noise. Water and irrigation district infrastructure projects are not expected to substantially increase traffic noise as they would be performed on an intermittent and relatively infrequent basis compared to other traffic generating activities. Furthermore, maintenance activities to remove aquatic vegetation from channels would occur and are not expected to generate substantial noise due to their frequency (annually at a portion of the canals, and less frequently at other portions) and duration (typically less than a day).

The City of Chico determined that noise from stationary sources would also result in a significant and unavoidable impact. Under Alternative 1, implementation of the general plan could result in the future development of land uses that generate substantial noise levels in close proximity to noise-sensitive land uses. In addition, new noise-sensitive land uses could be located in areas of existing stationary noise sources. The City's general plan goals, policies, and objectives restrict new development of noise-sensitive land uses, require an acoustical analysis when proposed projects are likely to expose noise-sensitive land uses to noise levels that exceed City standards, and limit noise through the use of insulation, berms, building design and orientation, staggered operation hours, and other techniques. However, the City of Chico determined some stationary noise impacts cannot be reduced to levels below significance.

NEPA Determination: Alternative 1 would result in a substantial permanent increase in ambient noise levels as a result of transportation noise and stationary sources (in the case of the City of Chico). Various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities; however, they would not reduce the permanent increase in ambient noise levels to below significance. Therefore, impacts would be significant and unavoidable.

CEQA Determination: Alternative 1 would result in a substantial permanent increase in ambient noise levels as a result of transportation noise and stationary sources (in the case of the City of Chico). Various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities; however, they would not reduce the permanent increase in ambient noise levels to below significance. Therefore, impacts would be significant and unavoidable.

Impact NOI-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Chico, Gridley, and Oroville determined that implementation of the general plans would result in a less-than-significant impact regarding a substantial temporary or periodic increase in ambient noise levels. Under Alternative 1, construction and demolition activities would occur. The various general plans contain goals, policies, and actions that limit construction hours and noise generating activity so that temporary construction noise would not exceed local standards. Similar to these Local Agency determinations, construction noise generated by Caltrans and water and irrigation districts for various public infrastructure activities would be temporary and would be restricted to certain work windows during daytime hours so that temporary construction noise would not exceed standards. The City of Biggs determined that implementation of the general plan would result in a substantial temporary or periodic increase in ambient noise levels in their planning area as a result of the construction and agricultural uses. While implementation of their general plan policies or best management practices could reduce this

impact, it would not reduce it to less-than-significant levels, and some noise-sensitive land uses would still be exposed to temporary or periodic increases in ambient noise.

NEPA Determination: Alternative 1 could result in a substantial temporary or periodic increase in ambient noise levels as a result of construction activities, but various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities to certain hours and incorporate certain noise reducing devices on construction equipment. However, implementation of the City of Biggs general plan policies or best management practices would not reduce this effect to a less-than-significant level within the jurisdiction. Therefore, impacts would be significant and unavoidable.

CEQA Determination: Alternative 1 could result in a substantial temporary or periodic increase in ambient noise levels as a result of construction activities, but various Local Agencies' general plans or Caltrans' best management practices would restrict noise generating activities to certain hours and incorporate certain noise reducing devices on construction equipment. However, implementation of the City of Biggs general plan policies or best management practices would not reduce this effect to a less-than-significant level within the jurisdiction. Therefore, impacts would be significant and unavoidable.

Impact NOI-5: Be located within an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

The County and the Cities of Chico, Gridley, Biggs, and Oroville determined that the implementation of the general plans would not result in a significant impact due to location within an airport land use plan area, or within 2 miles of a public or private airport. Under Alternative 1, sensitive land uses could be exposed to aircraft noise in excess of applicable noise standards for land use compatibility. The County and Cities have incorporated goals, policies, and objectives in their general plans to limit exposure to aircraft noise. These measures would ensure that future development near airports would meet applicable noise standards. Caltrans and water and irrigation districts' projects are not anticipated to permanently increase the number of workers within the vicinity of airports because these types of projects are infrastructure projects such as roads, pipelines, and canals. While construction workers may work within close proximity to an airport, they would do so intermittently and for a temporary period of time. Furthermore, construction workers would primarily experience noise from the actual construction work.

NEPA Determination: Alternative 1 could expose sensitive land uses to aircraft noise; however, because the various Local Agencies' general plans require limits on exposure to aircraft noise, and because Caltrans and water and irrigation district work would be temporary public infrastructure projects, the impact would be less than significant. No mitigation is required.

CEQA Determination: Alternative 1 could expose sensitive land uses to aircraft noise; however, because the various Local Agencies' general plans require limits on exposure to aircraft noise, and because Caltrans and water and irrigation district work would be temporary public infrastructure projects, the impact would be less than significant. No mitigation is required.

Impact NOI-6: Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

The County and the Cities of Biggs, Chico, Gridley, and Oroville determined that the implementation of the general plans would not result in a significant impact due to location in the vicinity of a private airstrip and exposing people to excessive noise levels. The County and Cities have incorporated goals, policies, and objectives in their general plans to limit exposure to aircraft noise. These measures would ensure that future development near airports would meet applicable noise standards. Impacts associated with Caltrans, waste and wastewater management agencies, and water and irrigation districts' activities would be similar to those described for NOI-5.

NEPA Determination: The impact determination would be the same as NOI-5; impacts would be less than significant. No mitigation is required.

CEQA Determination: The impact determination would be the same as NOI-5; impacts would be less than significant. No mitigation is required.

Alternative 2—Proposed Action

Under Alternative 2, covered activities would include the existing, planned, and proposed land uses over which the Permit Applicants have land use authority; state and local transportation projects; maintenance of water delivery systems (e.g., WCWD canals and similar delivery systems); habitat restoration, enhancement, and management actions (conservation measures); and adaptive management and monitoring activities. Most covered activities would require individual permits and approvals pursuant to the Local Agencies' general plans and land use regulations, or the requirements of the implementing agency (such as Caltrans and irrigation districts) and would undergo subsequent project-level CEQA review and relevant NEPA review for construction and operations-related impacts; some covered activities, however, may be exempted from environmental review requirements due to project characteristics including small projects or infill projects.

Potential noise impacts could occur during construction or maintenance of covered activities associated with planned development. Those activities that involve construction and the use of heavy construction equipment or those that involve earthmoving activities could generate noise. Covered activities that would involve construction (including earthmoving activities) are all development activities consistent with the Local Agencies' general plans, state and local transportation projects, and water district canal installation, and are described in Impacts NOI-1 through NOI-6 under Alternative 1.

Potential noise impacts could occur during construction or maintenance of covered activities associated with the conservation strategy and conservation measures. Potential noise impacts could occur from the use of construction equipment for habitat enhancement, vegetation removal, ground surface grading and recontouring, installation of irrigation systems, construction of facilities and roads, and in-water activities (CM4–CM11, CM14, and Activities to Improve Urban Stormwater Water Quality). Noise impacts could also result from maintenance activities that would require the use of trucks or off-road vehicles.

Impact NOI-1: Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies (NEPA: less than significant with mitigation; CEQA: less than significant with mitigation)

Impacts of Planned Development

Impacts related to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts would be the same under Alternative 2 as those described for Alternative 1, Impact NOI-1. In addition, implementation of BRCP AMM 27, *Avoid and Minimize Noise and Other Disturbances from Bridge Construction Activities*, included in Alternative 2, would further reduce noise impacts during construction.

Impacts of Conservation Strategy Implementation

Implementing the conservation strategy, including the conservation measures, would require the use of construction equipment throughout the Plan Area. The location of construction is currently unknown. Some construction activity could occur near noise-sensitive land uses such as rural residences. Table 11-16 shows the calculated worst-case L_{max} and L_{eq} sound levels (dBA) of four pieces of equipment (grader, truck, and two scrapers) operating simultaneously to implement conservation measures. Construction noise typically attenuates at a rate of 6 dB per doubling of distance.

Table 11-16. Worst-Case Scenario Noise Levels of Construction Equipment (Grader, Truck, Two Scrapers) Operating Simultaneously

Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	0	94	94
100	-6	-2	86	86
200	-12	-4	78	78
300	-16	-5	74	74
400	-18	-6	70	70
500	-20	-6	68	68
600	-22	-7	66	66
700	-23	-7	64	64
800	-24	-7	63	63
900	-25	-8	61	61
1,000	-26	-8	60	60
1,200	-28	-9	58	58
1,400	-29	-9	56	56
1,600	-30	-9	55	55
1,800	-31	-10	53	53
2,000	-32	-10	52	52
2,500	-34	-10	50	50
3,000	-36	-11	48	48

dB = decibel.

dBA = A-weighted decibel.

L_{eq} = equivalent sound level.

L_{max} = maximum sound level.

As shown in Table 11-16, construction activities could result in noise levels exceeding 60 dBA at distances as great as 1,000 feet. This indicates that construction noise, although temporary and infrequent based on the type of activity (e.g., grading or scraping to restore riparian areas), could exceed local standards within this distance.

NEPA Determination: Implementation of the Local Agencies' general plan policies, Caltrans' best management practices, or AMM 27 would restrict noise generating activities and, therefore, Alternative 2 would not expose persons or generate noise levels in excess of standards. However, construction activities associated with the conservation strategy could result in short-term exceedances in local noise standards; this impact would be less than significant with implementation of Mitigation Measure NOI-1.

CEQA Determination: Implementation of the Local Agencies' general plan policies, Caltrans' best management practices or AMM27 would restrict noise generating activities and, therefore, Alternative 2 would not expose persons or generate noise levels in excess of standards. However, construction activities associated with the conservation strategy could result in short-term exceedances in local noise standards; this impact would be less than significant with implementation of Mitigation Measure NOI-1.

Mitigation Measure NOI-1: Implement measures to reduce noise during construction and address noise complaints

Employ Noise-Reducing Construction Practices during Construction

During construction, BRCP proponents or authorized contractors will employ best practices to reduce construction noise near noise-sensitive land uses. Implementation of this measure will ensure that construction noise levels, as applicable, do not exceed 60 dBA (1-hour L_{eq}) during daytime hours (7:00a.m. to 10:00p.m.) and 50 dBA (single-event maximum) during nighttime hours (10:00p.m. to 7:00a.m.).

Measures used to limit construction noise include the following.

- Limiting above-ground noise-generating construction operations to the hours between 7a.m. and 6p.m, Monday through Friday, and between 8a.m. and 5p.m. on Saturdays.
- Locating stationary equipment (e.g., generators, compressors, rock crushers, cement mixers, idling trucks) as far as possible from noise-sensitive land uses.
- Prohibiting gasoline or diesel engines from having unmuffled exhaust.
- Requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer and that all equipment be operated and maintained to minimize noise generation.
- Preventing excessive noise by shutting down idle vehicles or equipment.
- Using noise-reducing enclosures around noise-generating equipment.
- Selecting haul routes that affect the fewest number of people.
- Constructing barriers between noise sources and noise-sensitive land uses or take advantage of existing barrier features (e.g., terrain, structures) to block sound transmission to noise-sensitive land uses. The barriers shall be designed to obstruct the line of sight

between the noise-sensitive land use and onsite construction equipment. When installed properly, acoustic barriers can reduce construction noise levels by approximately 8 to 10 dBA (U.S. Environmental Protection Agency 1971).

Prior to Construction, Initiate a Complaint/Response Tracking Program

Prior to construction, BRCP proponents or authorized contractors will make a construction schedule available to residents living in the vicinity of the construction areas before construction begins and designate a noise disturbance coordinator. The coordinator will be responsible for responding to complaints regarding construction noise by determining the cause of the complaint, and ensuring that reasonable measures are implemented to correct the problem when feasible. A contact telephone number for the noise disturbance coordinator will be conspicuously posted on construction site fences and will be included in the notification of the construction schedule.

Impact NOI-2: Expose persons to or generate excessive groundborne vibration or groundborne noise levels (NEPA: less than significant; CEQA: less than significant)

Impacts of Planned Development

Impacts related to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts would be the same under Alternative 2 as those described for Alternative 1, Impact NOI-2. In addition, implementation of BRCP AMM 27, *Avoid and Minimize Noise and Other Disturbances from Bridge Construction Activities*, included in Alternative 2, would further reduce impacts related to groundborne vibration or groundborne noise levels.

Impacts of Conservation Strategy Implementation

Implementing the conservation strategy, including the conservation measures, would require the use of construction equipment. Heavy construction equipment would be used throughout the Plan Area. It is anticipated that construction equipment would not typically operate within 50 feet of residences and structures where vibration may be perceptible. Any vibration would be intermittent and temporary.

NEPA Determination: Implementation of the Local Agencies' general plan policies, Caltrans' best management practices, or AMM 27 would restrict noise generating activities and, therefore, Alternative 2 would not expose persons to excessive groundborne vibrations. In addition, heavy equipment associated with the conservation strategy would not operate within 50 feet of residences and, therefore, groundborne vibration would not be perceptible. The impact would be less than significant. No mitigation is required.

CEQA Determination: Implementation of the Local Agencies' general plan policies, Caltrans' best management practices, or AMM 27 would restrict noise generating activities and, therefore, Alternative 2 would not expose persons to excessive groundborne vibrations. In addition, heavy equipment associated with the conservation strategy would not operate within 50 feet of residences and, therefore, groundborne vibration would not be perceptible. The impact would be less than significant. No mitigation is required.

Impact NOI-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts of Planned Development

Impacts related to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts would be the same under Alternative 2 as those described for Alternative 1, Impact NOI-3. Implementation of BRCP AMM 27, *Avoid and Minimize Noise and Other Disturbances from Bridge Construction Activities*, would not fully reduce these impacts to less-than-significant levels.

Impacts of Conservation Strategy Implementation

Operation of the conservation strategy is not anticipated to result in a substantial permanent increase in noise. Activities that would occur within the Plan Area on a permanent and ongoing basis include travel through the preserve by all-terrain vehicle, truck, or off-road vehicle. Minor increases in traffic associated with habitat restoration and construction in different locations throughout the Plan Area would occur. Monitoring activities are expected to generate a low number of daily trips and would not create a significant amount of noise.

NEPA Determination: Like Alternative 1, Alternative 2 would result in a substantial permanent increase in ambient noise levels as a result of transportation noise generated in all Local Agency jurisdictions and by stationary sources in the City of Chico as a result of general plan implementation. Operation of the conservation strategy is not anticipated to result in a substantial permanent increase in noise and no mitigation measures are necessary for noise generated by operation of the conservation strategy. Various Local Agencies' general plans or Caltrans' best management practices would restrict noise-generating activities; however, for impacts related to implementation of the general plans, they would not reduce the permanent increase in ambient noise levels to below significance. The impacts would be significant and unavoidable.

CEQA Determination: Like Alternative 1, Alternative 2 would result in a substantial permanent increase in ambient noise levels as a result of transportation noise and stationary sources (in the case of the City of Chico) generated by general plan implementation. Operation of the conservation strategy is not anticipated to result in a substantial permanent increase in noise. Various Local Agencies' general plans or Caltrans' best management practices would restrict noise-generating activities; however, they would not reduce the permanent increase in ambient noise levels to below significance. Therefore, impacts would be significant and unavoidable.

Impact NOI-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts of Planned Development

Impacts would be the same under Alternative 2 as those described for Alternative 1, Impact NOI-4 for impact analysis related to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts. Implementation of BRCP AMM 27, *Avoid and Minimize Noise and Other Disturbances from Bridge Construction Activities*, would not fully reduce these impacts to less-than-significant levels.

Impacts of Conservation Strategy Implementation

As stated above under Alternative 2, Impact NOI-1, implementing the conservation strategy would entail construction activities throughout the Plan Area. Construction noise, although temporary, could result in substantial temporary increases in ambient noise levels. As shown above in Table 11-16, construction noise levels could result in noise levels exceeding 60 dBA at distances as great as 1,000 feet. This would result in a substantial temporary or periodic increase in ambient noise levels.

NEPA Determination: Like Alternative 1, Alternative 2 would result in a substantial temporary increase in ambient noise levels as a result of construction noise generated by general plan implementation in the City of Biggs. The City's general plan policies or mitigation measures would not reduce the permanent increase in ambient noise levels to below significance. Construction impacts associated with the conservation strategy would be reduced with implementation of Mitigation Measure NOI-1. However, impacts would remain significant and unavoidable.

CEQA Determination: Like Alternative 1, Alternative 2 would result in a substantial temporary increase in ambient noise levels as a result of construction noise generated by general plan implementation in the City of Biggs. The City's general plan policies or mitigation measures would not reduce the permanent increase in ambient noise levels to below significance. Construction impacts associated with the conservation strategy would be reduced with implementation of Mitigation Measure NOI-1. However, impacts would remain significant and unavoidable.

Mitigation Measure NOI-1: Implement measures to reduce noise during construction and address noise complaints

Impact NOI-5: Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

Impacts of Planned Development

Impacts related to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts would be the same under Alternative 2 as those described for Alternative 1, Impact NOI-5.

Impacts of Conservation Strategy Implementation

Implementing the conservation strategy, including the conservation measures, would require the use of construction equipment throughout the Plan Area. It is not known where the activities would take place. Construction workers may be located within 2 miles of a public airport. However, construction activities would be temporary and intermittent and is not expected to expose workers to excessive noise.

NEPA Determination: The impact determination would be the same as Alternative 1; impacts would be less than significant. No mitigation is required.

CEQA Determination: The impact determination would be the same as Alternative 1; impacts would be less than significant. No mitigation is required.

Impact NOI-6: Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

Impacts of Planned Development

Impacts related to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts would be the same under Alternative 2 as those described for Alternative 1, Impact NOI-6.

Impacts of Conservation Strategy Implementation

Implementing the conservation strategy under Alternative 2 would be the same as described for NOI-5 above.

NEPA Determination: The impact determination would be the same as NOI-5 under Alternative 2; impacts would be less than significant. No mitigation required.

CEQA Determination: The impact determination would be the same as NOI-5 under Alternative 2; impacts would be less than significant. No mitigation required.

Alternative 3—Reduced Development/Reduced Fill

Alternative 3 is similar to Alternative 2 except that it uses the various general plan EIR reduced development alternatives as described in Chapter 2, *Proposed Action and Alternatives*, to create a single reduced development footprint. Covered activities under this alternative would be similar to those described in the BRCP but would be limited to the reduced development footprint for a reduced permit term of 30 years. The reduced footprint and reduced land conservation would likely result in fewer built structures and, therefore, less ground disturbance.

It is anticipated that under Alternative 3, fewer acres of natural communities would be conserved because reduced development would provide reduced funding for the conservation strategy. However, it is anticipated that the conservation measures would be the same because the reduction of fill would be achieved through the reduced development footprint of the Local Agencies' general plans rather than through modification of the conservation measures. Consequently, the impacts related to implementation of the conservation strategy and conservation measures would be the same as under Alternative 2.

Impact NOI-1: Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies (NEPA: less than significant with mitigation; CEQA: less than significant with mitigation)

There would be fewer impacts expected under Alternative 3 when compared to Alternative 2 because under this alternative, it is anticipated there may be less development or fewer structures. However, impacts associated with the conservation strategy would be the same and could result in short-term exceedances in local noise standards.

NEPA Determination: The impact determination would be the same as Alternative 2; with Mitigation Measure NOI-1 incorporated, the impact would be less than significant.

CEQA Determination: The impact determination would be the same as Alternative 2; with Mitigation Measure NOI-1 incorporated, the impact would be less than significant.

Mitigation Measure NOI-1: Implement measures to reduce noise during construction and address noise complaints**Impact NOI-2: Expose persons to or generate excessive groundborne vibration or groundborne noise levels (NEPA: less than significant; CEQA: less than significant)**

There would be fewer impacts expected under Alternative 3 when compared to Alternative 2 with respect to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts because under this alternative, it is anticipated there would be less development. Impacts associated with the conservation strategy would be the same as described under Alternative 2.

NEPA Determination: The impact determination would be the same as Alternative 2. The impact would be less than significant. No mitigation is required.

CEQA Determination: The impact determination would be the same as Alternative 2. The impact would be less than significant. No mitigation is required.

Impact NOI-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

There would be fewer impacts expected under Alternative 3 compared to Alternative 2 with respect to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts because under this alternative, it is anticipated there may be less development. However, substantial permanent increase in ambient noise levels as a result of transportation noise and stationary sources (in the case of the City of Chico) generated by general plan implementation would still occur. Various Local Agencies' general plans or Caltrans' best management practices would restrict noise-generating activities; however, they would not reduce the permanent increase in ambient noise levels to below significance. Operation of the conservation strategy is not anticipated to result in a substantial permanent increase in noise, as described in Alternative 2.

NEPA Determination: The impact determination would be the same as Alternative 2. The impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2. The impact would be significant and unavoidable.

Impact NOI-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

This impact would be slightly less under Alternative 3 as compared to Alternative 2 with respect to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts because under this alternative, it is anticipated there would be less development. However, there would still be a substantial temporary increase in ambient noise levels as a result of construction noise generated by general plan implementation in the City of Biggs. In addition, temporary and periodic noise from construction activities associated with the conservation strategy could occur near noise-sensitive land uses.

NEPA Determination: The impact determination would be the same as Alternative 2. Mitigation Measure NOI-1 would reduce temporary noise impacts from construction activities related to the conservation strategy to less-than-significant levels; however, impacts associated with implementation of the Biggs general plan would remain significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2. Mitigation Measure NOI-1 would reduce temporary noise impacts from construction activities related to the conservation strategy to less than significant levels; however, impacts associated with implementation of the Biggs general plan would remain significant and unavoidable.

Mitigation Measure NOI-1: Implement measures to reduce noise during construction and address noise complaints

Impact NOI-5: Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

This impact would be the same under Alternative 3 as under Alternative 2 with respect to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts and under the conservation strategy.

NEPA Determination: The impact determination would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

CEQA Determination: The impact determination would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

Impact NOI-6: Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

This impact would be the same under Alternative 3 as under Alternative 2 with respect to covered activities within the jurisdictions of the Local Agencies and undertaken by Caltrans and water and irrigation districts and under the conservation strategy.

NEPA Determination: The impact under Alternative 3 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

CEQA Determination: The impact under Alternative 3 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

Alternative 4—Greater Conservation

Alternative 4 would be similar to Alternative 2 except that under Alternative 4, the conservation strategy would include the conservation of an additional 9,850 acres of grassland and 35,310 acres of riceland. Alternative 4 would include the same conservation measures as Alternative 2, and all other acreage protection targets for natural communities/land types would be the same as described for Alternative 2. The impacts of the covered activities within local jurisdictions of the Local Agencies would be the same under Alternative 4 as under the Alternative 2, as would the water district and irrigation districts' covered activities and the Caltrans activities.

Impact NOI-1: Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies (NEPA: less than significant with mitigation; CEQA: less than significant with mitigation)

This impact would be the same under Alternative 4 as under Alternative 2 as increased conservation of additional grasslands and ricelands would not generate noise levels in excess of established standards beyond those already identified under Alternative 2.

NEPA Determination: The impact determination under Alternative 4 would be the same as under Alternative 2. With Mitigation Measure NOI-1 incorporated to reduce construction noise generated as a result of the conservation strategy, the impact would be less than significant.

CEQA Determination: The impact determination under Alternative 4 would be the same as under Alternative 2. With Mitigation Measure NOI-1 incorporated to reduce construction noise generated as a result of the conservation strategy, the impact would be less than significant.

Mitigation Measure NOI-1: Implement measures to reduce noise during construction and address noise complaints

Impact NOI-2: Expose persons to or generate excessive groundborne vibration or groundborne noise levels (NEPA: less than significant; CEQA: less than significant)

This impact would be the same under Alternative 4 as under Alternative 2 as increased conservation of additional grasslands and ricelands would not generate groundborne vibrations beyond those already identified under Alternative 2.

NEPA Determination: The impact determination under Alternative 4 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

CEQA Determination: The impact determination under Alternative 4 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

Impact NOI-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

This impact would be the same under Alternative 4 as under Alternative 2 as increased conservation of additional grasslands and ricelands would not result in a substantial permanent increase in ambient noise levels beyond those already identified under Alternative 2.

NEPA Determination: The impact determination under Alternative 4 would be the same as under Alternative 2. The impact would be significant and unavoidable.

CEQA Determination: The impact determination under Alternative 4 would be the same as under Alternative 2. The impact would be significant and unavoidable.

Impact NOI-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

This impact would be the same under Alternative 4 as under Alternative 2 as increased conservation of additional grasslands and ricelands would not result in a substantial temporary or periodic increase in ambient noise levels beyond those already identified under Alternative 2.

NEPA Determination: The impact determination would be the same as Alternative 2. Mitigation Measure NOI-1 would reduce temporary noise impacts from construction activities related to the conservation strategy to less-than-significant levels; however, impacts associated with implementation of the Biggs general plan would remain significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2. Mitigation Measure NOI-1 would reduce temporary noise impacts from construction activities related to the conservation strategy to less-than-significant levels; however, impacts associated with implementation of the Biggs general plan would remain significant and unavoidable.

Mitigation Measure NOI-1: Implement measures to reduce noise during construction and address noise complaints

Impact NOI-5: Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

This impact would be the same under Alternative 4 as under Alternative 2 as increased conservation of additional grasslands and ricelands would not expose residents or workers to noise levels associated with airports beyond those already identified under Alternative 2.

NEPA Determination: The impact under Alternative 4 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

CEQA Determination: The impact under Alternative 4 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

Impact NOI-6: Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels (NEPA: less than significant; CEQA: less than significant)

This impact would be the same under Alternative 4 as under Alternative 2 as increased conservation of additional grasslands and ricelands would not expose residents or workers to noise levels associated with airports beyond those already identified under Alternative 2.

NEPA Determination: The impact under Alternative 4 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

CEQA Determination: The impact under Alternative 4 would be the same as under Alternative 2. The impact would be less than significant. No mitigation is required.

11.2.4 Cumulative Analysis

Methods and Approach

The cumulative analysis for noise is a qualitative evaluation using the past, present, and reasonably foreseeable future projects listed in Chapter 3, Section 3.3.2, under *Cumulative Impacts*. This cumulative effects analysis for noise considers the effects of implementing the action alternatives in combination with other past, present, and reasonably foreseeable projects or programs. The analysis focuses on projects in the Plan Area, in particular those that could create a cumulatively significant increase in noise relative to noise-sensitive land uses. This analysis considered urban development projects, including roadway projects, and water supply development projects; the general plan EIR impact determinations for cumulative impacts, where applicable; and the impact determinations identified above for the various alternatives. This analysis determines whether the covered activities not analyzed in previous environmental documents would result in cumulatively considerable incremental contribution that, when combined with the past, present, and reasonably foreseeable future projects, would result in a cumulatively significant impact.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects are identified in Chapter 3, *Approach to the Analysis*. Overall, these projects have resulted in or are anticipated to result in cumulative impacts as a result of transportation noise from urban development, including roadway projects, and the construction of infrastructure facilities.

The County and the Cities of Chico, Gridley, and Oroville determined that there would be cumulatively considerable and significant and unavoidable impacts as a result of transportation noise. Implementation of the general plans would noticeably increase transportation noise (traffic, train, and aircraft) throughout the Plan Area. Various general plan goals, policies, and actions are in place to reduce noise impacts due to transportation; however, it is still anticipated that there would be a substantial permanent increase in ambient noise levels. Since transportation noise is an unavoidable outcome of residential and commercial growth as foreseen in the implementation of the various general plans, this cumulative impact is significant and unavoidable for all alternatives.

11.3 References

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12.1 Affected Environment

This section describes the regulatory and environmental setting associated with public services and public utilities.

12.1.1 Regulatory Setting

Federal

No federal regulations related to public services or utilities are applicable to the proposed Plan.

State

The California Public Utilities Commission (CPUC) regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. CPUC is responsible for ensuring that California utility customers have safe, reliable utility service at reasonable rates, protecting utility customers from fraud, and promoting the health of California's economy. CPUC establishes service standards and safety rules, authorizes utility rate, and enforces CEQA for utility construction. CPUC also regulates the relocation of power lines by public utilities under its jurisdiction, such as PG&E, and works with other state and federal agencies in promoting water quality, environmental protection, and safety.

Local

Butte County General Plan

Relevant goals and policies of the *Butte County General Plan 2030* (Butte County 2012) are listed below.

Goal PUB-1: Maintain facilities and staff adequate to provide appropriate levels of government services and administration for the residents of Butte County.

Policy PUB-P1.4: Governmental and civic facilities shall accommodate multiple community uses.

Goal PUB: Provide adequate fire protection and emergency medical response services to serve existing and new development.

Policy PUB-P2.3: New fire stations shall be located on sites that are easily accessible, close to existing or future development, and/or close to fire hazard areas. (Land Use Element Policy 5.7.a).

Goal PUB-3: Maintain a safe environment in Butte County through the enforcement of law.

Policy PUB-P3.1: The County supports the expansion of volunteer services for law enforcement. (Policy Alternatives 29.c)

Goal PUB-4: Support high-quality schools and educational facilities for all Butte County residences.

Policy PUB-P4.3: Plans for future growth areas shall incorporate new school sites as appropriate. (Policy Alternatives 30.a)

Goal PUB-5: Provide library services to meet the informational and social needs of each community.

Policy PUB-A5.1: Identify opportunities to partner with the municipalities, other agencies, and library support organizations in providing library facilities and services.

Goal PUB-9: Provide safe, sanitary and environmentally acceptable solid waste management.

Policy PUB-P9.3: Innovative strategies shall be employed to ensure efficient and cost-effective solid waste and other discarded materials collection, disposal, transfer, and processing.

Policy PUB-P9.5: The Neal Road Recycling and Waste Facility should prioritize disposal and processing capacity for waste materials generated within Butte County, but accept waste materials from outside the county when capacity is available and the rates cover the full cost of disposal and processing.

Goal PUB-12: Manage wastewater treatment facilities at every scale to protect the public health and safety of Butte County residents and the natural environment.

Policy PUB-P12.3: New community sewage systems shall be managed by a public County sanitation district or other County-approved methods. Proponents shall demonstrate the financial viability of constructing, operating, and maintaining the proposed community sewage system.

PUB-P12.4: New sewer collection and transmission systems shall be designed and constructed to minimize potential inflow and infiltration.

Goal PUB-13: Plan adequate wastewater infrastructure to serve new development.

Policy PUB-P13.1: The County shall encourage all plant operations to begin planning and implementing expansions to the existing Regional Wastewater Treatment master Plan to meet future demand for wastewater treatment generated by this General Plan at least four years prior to reaching the capacity of existing facilities.

Policy PUB-P13.2: New development projects shall demonstrate the availability of a safe, sanitary, and environmentally sound wastewater system.

City of Oroville

Relevant goals and policies of the *Oroville 2013 General Plan* (City of Oroville 2009a) are listed below.

Goal PUB-1: Maintain a safe environment in Oroville through the provision of law enforcement services, crime prevention and the creation of community partnerships for public safety.

P1.1: Provide law enforcement services that help to maintain a low occurrence of criminal activity within the community.

Goal PUB-2: Provide adequate fire protection and emergency response services.

P2.5: Strive to comply with Insurance Services Office (ISO) recommendations for fire engine response within the built areas of the City.

P2.6: Ensure that new development incorporates adequate emergency water flow, fire resistant design and materials, and evacuation routes; is accessible to emergency vehicles; and does not affect the ability of service providers to provide adequate emergency response.

Goal PUB-3: Provide educational facilities in Oroville sufficient to meet the demands of existing and new development.

P3.2: Support and cooperate with the Oroville Planning Area school districts in planning for and providing educational services, school facilities with sufficient capacity, and District- wide support facilities to meet the needs of current and projected future student enrollments and employees.

Goal PUB-6: Provide sufficient supplies of high quality water to City residents and businesses to serve the City in the most efficient and financially-sound manner.

P6.1: Ensure that Oroville’s potable water distribution and storage system is adequately sized to serve development allowed by the General Plan, without providing excess capacity.

P6.4: Require the installation of water lines concurrently with construction of new roadways to maximize efficiency and minimize disturbance due to construction activity.

P6.6: Ensure that all proposed developments can be adequately served by available water supplies.

City of Gridley

General Plan Public Facilities Element

Relevant goals and policies of the *City of Gridley 2030 General Plan* (City of Gridley 2010) are listed below.

Goal 1: To maintain safe and reliable ongoing water supply

Policy 1.2: The City will treat, monitor, and remediate water supplies using state and federal public health and water quality standards.

Goal 2: To provide environmentally sustainable, efficient and effective wastewater collection, conveyance, and treatment.

Policy 2.2: The City will direct phased, efficient extension of wastewater collection and improvements to wastewater treatment and disposal systems, to meet existing and future needs.

Goal 4: To provide efficient and reliable electricity service to Gridley residents and businesses.

Policy 4.2: The City will monitor the electricity infrastructure in existing developed portions of the City and explore options for infrastructure improvements, as needed and as funding is available.

Goal 5: To provide high-quality law enforcement services designed to protect the public health, safety, and welfare.

Policy 5.3: The City will require roadway connectivity, emergency access, and siting of new police facilities with the goal of maintaining an average police response time of 3 minutes or less for emergency calls.

Goal 6: To provide effective fire suppression and emergency response.

Policy 6.1: The City will ensure that fire suppression service providers have facilities with sufficient capacity, personnel, and equipment to provide a response time of four minutes or less at least 90 percent of the time within City limits, with response time measured from the 911 call time to the arrival time of the first responder at the scene.

City of Biggs

Relevant goals and policies of the *City of Biggs General Plan* (City of Biggs 2014) are listed below.

Goal PFS-1: Ensure that public facilities are planned and constructed in a comprehensive and efficient manner and that new development provides for facilities on an equitable basis.

Policy PFS-1.3 (infrastructure installation): Construction of oversized or off-site facilities may be required of development projects to provide capacity for future development.

Goal PFS-2: Ensure an ample supply of high quality water and adequate treatment and distribution facilities are available to meet the present and future needs of the City.

Policy PFS-2.1 (Water System): Provide a high-quality, cost-efficient municipal water supply and distribution system that meets California Department of Health guidelines and standards.

Goal PFS-5: Ensure that electrical service facilities are adequate to meet the needs of current and future residents and that those facilities are maintained and operated in a safe and efficient manner.

Policy PFS-5.1 (Electric System Planning): Prepare an Electric System Master Plan to address current and future electric service needs.

Policy PFS-5.2 (Electric System Upgrades): Continue to upgrade the city's electrical service infrastructure to reduce line losses and increase the power factor ratios.

Policy PFS-5.5 (Electric System Interconnection): Require main electric distribution lines to be interconnected wherever feasible to facilitate the reliable delivery of electricity within the city.

Goal PFS-6: Ensure that solid waste disposal and recycling services are adequate to meet the needs of the City's current and future residents.

City of Chico

Relevant goals and policies of the *Chico 2030 General Plan* (City of Chico 2011a) are listed below.

Goal PPFS-5: Maintain a sustainable supply of high quality water, delivered through an efficient water system to support Chico's existing and future population, including fire suppression efforts.

Policy PPFS-5.1: Consult with Cal Water to ensure that its water system will serve the City's long-term needs and that State regulations SB 610 and SB 122 are met.

Goal PPFS-8: Ensure that solid waste and recyclable collection services are available to City residents.

Policy PPFS-8.1: Provide solid waste collection services that meet or exceed state requirements for source reduction, diversion, and recycling.

12.1.2 Environmental Setting

Public Services

The County General Plan EIR describes the provision of public services within the Plan Area. The following descriptions are summarized from pages 379–387 of the County General Plan EIR.

Fire Protection

The responsibility for the prevention and suppression of wildfires in the county belongs to the Butte County Fire Department (BCFD) and the California Department of Forestry and Fire Protection (CAL FIRE), and to individual municipalities and a fire protection district (Butte County 2012).

In State Board of Forestry–designated State Responsibility Areas (SRAs), the state has fiscal responsibility for preventing and suppressing wildfires. CAL FIRE, BCFD, and the Butte County Fire Safe Council have collaborated to address wildland fire hazards by developing the Butte Unit Community Wildfire Protection Plan, and CAL FIRE and BCFD maintain the Fire Management Plan. This plan “systematically assesses the existing level of wildland fire protection service, identifies

high-risk and high-value areas where potential exists for costly and damaging wildfires, ranks these areas in terms of priority needs, and prescribes what can be done to reduce future costs and losses.” (Butte County 2012).

There are four independent fire departments in the county: the City of Chico Fire Department, the City of Oroville Fire Department, the Town of Paradise Fire Department, and the El Medio Fire Protection District.

The City of Chico Fire Department maintains a force of both full-time and volunteer firefighters in six operating stations. The department fields specialized teams for technical rescues, drowning accidents, and hazardous materials response. The average response time for residents in the City of Chico is 4.4 minutes. Locations of the six department fire stations are shown below.

- Station 1: 842 Salem Street, Chico, CA 95928
- Station 2: 182 S. 5th Avenue, Chico, CA 95926
- Station 3: 145 Boeing Avenue, Chico, CA 95973
- Station 4: 2405 Notre dame Boulevard, Chico, CA 95928
- Station 5: 1777 Manzanita Avenue, Chico, CA 95926
- Station 6: 2544 Highway 32, Chico, CA 95973

The City of Oroville has an independent fire department that provides services in the event of fire or medical emergencies. Fire Station One is located at 2055 Lincoln Street in Oroville and is supported by 21 full-time personnel and 12 paid fire fighters.

The Town of Paradise provides service to its constituents through the three stations run by the Paradise Fire Department. These three stations respond to all emergencies and provide response services to fires, emergency medical services, hazardous materials, rescue, and public assist.

The El Medio Fire Protection District is located south of the Oroville city limits. It consists of one station, located at 3515 Myers Street, Oroville, CA 95966, and houses two engines. The fire protection district consists of four operational divisions: Administration, Operations, Fire Prevention, and Training.

Emergency Medical Services

BCFD and CAL FIRE provide fire and emergency services to the entire unincorporated county population, with the exception of Cities of Chico and Oroville, the Town of Paradise, and the El Medio Fire Protection District (Butte County 2012). The BCFD Emergency Command Center (ECC) provides Emergency Medical Dispatch (EMD) services. The EMD services provide life-saving instruction for cardio-pulmonary resuscitation, control of bleeding, childbirth, choking, and other emergency medical procedures to help residents before fire engines and paramedics arrive (Butte County 2012).

Police Services

Law enforcement services in the county are provided by the Butte County Sheriff’s Office (BCSO), the California Highway Patrol (CHP), and police agencies in the Cities of Chico, Oroville, Gridley, and Biggs and the Town of Paradise (Butte County 2012).

Law enforcement, criminal investigation, and crime prevention in the county are led by BCSO. BCSO, as the countywide coordinator for mutual aid situations, maintains mutual aid agreements with CHP and the municipal police departments (Butte County 2012). The county jail, which is used by all law enforcement agencies in the county, is administered by BCSO. The BCSO main office is located in Oroville, with substations in Chico and Magalia.

CHP has a mutual aid agreement with the Sheriff's Department and will respond quickly when requested by the Sheriff. CHP's primary role is to provide law enforcement services, primarily traffic control, for state roads and roads in the unincorporated portions of the county (Butte County 2012).

Municipal police departments in Oroville, Chico, Gridley, Biggs, and Paradise maintain a mutual aid agreement with the BCSO (Butte County 2012). Citizens and their property are protected by their respective municipal police departments and their authorized jurisdictions. Under the terms of the mutual aid agreement, BCSO can assume that role in the jurisdictions on request or in the event of the inability of municipal police departments to provide law enforcement (Butte County 2012).

Public Schools

The Butte County Office of Education (BCOE), Butte Community College, California State University, Chico, and local school districts provide public education in the county. Local districts provide elementary and secondary education to the municipalities and unincorporated areas of the county. BCPE provides special education and other related services to the individual districts within the county. Butte Community College is a 2-year junior college; California State University, Chico, is a 4-year college (Butte County 2012).

BCOE provides local and regional educational programs, services, and support to the individual school districts within the county and outside the county. Three areas of service are provided by the BCOE: administrative and organizational support, curriculum and staff support, and student services.

The Butte Community College main campus is located approximately 15 miles northwest of Oroville and is accessible to Oroville, Chico, Durham, Gridley, Paradise, and Magalia. This 2-year community college offers a range of liberal arts and career/technical classes through full-time, part-time, and evening programs (Butte County 2012).

California State University, Chico, is located in Chico and serves the county and the region. Chico State has seven colleges, six schools, and fourteen centers. Chico is one of the California State University system's most popular campuses, and is the second oldest campus in the system (Butte County 2012).

The school districts in the county are listed below.

- Biggs Unified School District.
- Chico Unified School District.
- Durham Unified School District.
- Paradise Unified School District.
- Gridley Union High School District.
- Gridley Union Elementary School District.

- Manzanita Elementary School District.
- Oroville Union High School District.
- Bangor Union Elementary School District.
- Feather Falls Union School District.
- Golden Feather Union School District.
- Oroville City Elementary School District.
- Palermo Union Elementary School District.
- Pioneer Union Elementary School District.
- Thermalito Union School District.

Public Utilities

Water

Much of the county's residential, commercial, and agricultural water needs are met through a network of local water providers, including municipal water departments, mutual water companies, investor-owned utilities, irrigation districts, systems serving a small number of connections, and special districts (Butte County 2012).

The following water districts are within the county.

- California Water District—Chico.
- California Water District—Oroville.
- Del Oro Water Company.
- Durham Irrigation District.
- Gran Mutual Water Company.
- Lake Madrone Water District.
- Paradise Irrigation District.
- Biggs–West Gridley Water District.
- Butte Water District.
- Durham Mutual Water Company.
- Ramirez Water District.
- Richvale Irrigation District.
- South Feather Water & Power Agency.
- Western Canal Water District.
- Thermalito Water and Sewer District.

Wastewater

Three different methods of wastewater treatment and disposal are currently used in the county: municipal wastewater treatment plants, non-municipal wastewater systems, and individual onsite wastewater disposal systems, generally referred to as septic systems (Butte County 2012).

The five active municipal wastewater treatment plants in the county are listed below.

- City of Biggs.
- City of Chico.
- City of Gridley.
- Richvale Sanitary District.
- Sewerage Commission—Oroville Region (SC-OR), which serves the City of Oroville, Thermalito Water and Sewer District (TWS), and the Lake Oroville Area Public Utility District (LOAPUD).

There are currently six community service areas (CSAs) managing nonmunicipal wastewater systems in the county.

- CSA 21: Oakridge Sewer.
- CSA 82: Stirling City Sewer
- CSA 94: Sycamore Valley Sewer.
- CSA 135: Keefer Creek Estates.
- CSA 141: Mountain Oaks Sewer.
- CSA 169: Pheasant Landing.

According to the County General Plan 2030, there are an estimated 50,000 onsite sewage disposal systems in the county (unincorporated areas as well as cities and towns) serving approximately half the county's population. Septic systems in the Chico area, both existing and new, are strictly regulated by the Nitrate Compliance Plan that was adopted in 2001 to mitigate elevated levels of nitrates in area groundwater.

Solid Waste

Existing solid waste management facilities in the county consist of two transfer stations, a large transfer station/materials recovery facility, the Neal Road Recycling and Waste Facility (Neal Road Facility), one private wood waste recycler, and two municipal wood waste recyclers (Butte County 2012).

The County owns and runs the Neal Road Recycling and Waste Facility, 7 miles southwest of Chico. The County Public Works Department assumed daily operational responsibility for the facility in 2003. The Neal Road facility is permitted to receive municipal solid waste, inert industrial waste, demolition materials, special wastes containing non-friable asbestos, and septage. Based on current waste volumes, projections suggest that the Neal Road facility has capacity to last through 2034 (Butte County 2012).

Existing recycling activities and programs are overseen and operated by the County at the Neal Road facility and by private entities at other locations (Butte County 2012). These include a permitted

regional composting facility (as well as a number of privately operated facilities) and one biomass conversion facility—the Pacific Oroville Power plant.

Electricity and Natural Gas

The City of Biggs owns, operates, and maintains its own utility system. This service has provided an important source of revenue for the City and has allowed residents to receive reliable power (City of Biggs 2014:PFS-4). The City is an active member of the Northern California Power Agency (NCPA). In the county, residential energy needs are often fulfilled by electricity or a combination of gas and electricity. Space heating is the most energy-consuming activity in residential structures (Butte County 2012). Electricity purchased from PG&E by local customers in the County is generated and transmitted to the county by a statewide network of power plants and transmission lines. Transmission and distribution lines carry electrical power from power plants within and outside the county to electrical substations. The County has control over the siting of electrical substations (City of Chico 2011a). Much of PG&E's natural gas supply comes from Canada and is supplied to the region through the Hershey station in Colusa County. Wild Goose Storage Inc. operates an underground natural gas storage facility in the county. A 25-mile pipeline carries gas between the main PG&E pipeline in Colusa County and the Wild Goose facility, which stores natural gas in an underground rock formation that previously produced natural gas (City of Chico 2011a). Gridley is a member of the Northern California Power Agency (NCPA) and the Western Area Power Administration (WAPA) (City of Gridley 2011). PG&E provides the county, including Oroville, with most of its electricity (City of Oroville 2011).

County and City Parks and Recreational Facilities

Large open space and recreational areas in the Plan Area are owned and managed by various federal and state agencies. Nine such federal and state recreational facilities are located throughout the county. For specific details on each location, please refer to Chapter 13, *Recreation, Open Space, and Visual Resources*.

Five recreation and park districts encompass most of the County's land. Three of these are fully within the Plan Area: Chico Area Recreation and Park District, Durham Recreation and Park District, and Richvale Recreation and Park District. A section of the Feather River Recreation and Park District within the Plan Area extends east and southeast of Lake Oroville. For detailed acreage of these park districts, please see Chapter 13.

The City of Biggs has three small parks with a variety of amenities such as ball courts, ball fields, picnic areas, playgrounds, restrooms, and a skatepark (City of Biggs 1998). Currently, no trails connect Biggs with levees, flood control lands, or public open space outside the community. The closest Class I bike trail is the Freeman Trail on the Thermalito Afterbay levee, approximately 2.5 miles away. A Class I bike trail is planned to connect Biggs to the Cherokee Canal levee to the northwest and the city of Gridley to the southeast. Class II bike trails have been planned leading from the city to the north, south, and east connecting the city to Cherokee Canal, Gridley, and Oroville Wildlife Area (Butte County 2007). Biggs does not have a boat ramp, water access, or fishing pier along the three levees closest to the city.

Recreational and open space resources, facilities, and services in Chico have historically been provided by both the City of Chico and the Chico Area Recreation and Park District (CARD). The City has primary responsibility for Bidwell Park (3,670 acres) and the neighborhood parks; CARD has

primary responsibility for recreation programming and community parks. The City has 37 existing sites that are parks, open space, or recreation centers totaling 4,176 acres (City of Chico 2011a).

The City of Gridley has four parks and a boat ramp. Amenities at Gridley's parks include ball courts, ball fields, picnic areas, playgrounds, restrooms, and a skatepark. The boat ramp is located on the Feather River east of the city next to the City's water treatment plant. There is a shooting range located at the boat ramp. Currently, no trails connect Gridley with levees, flood control lands, or public open spaces outside the community. The closest Class I bike trail is the Freeman Trail on the Thermalito Afterbay levee, approximately 5 miles away. A Class I bike trail is planned to connect Gridley to the Cherokee Canal levee via Biggs (Butte County 2007). Other Class II bike lanes have been planned leading from the city to the north, south, east, and west connecting the Gridley to Biggs, Live Oak, the Feather River, and Gray Lodge Waterfowl Management Area (Butte County 2007).

The City of Oroville has 37 existing parks, recreational facilities, and open spaces within its city limits. The city parklands encompass approximately 280 acres, while the Feather River Recreation and Parks District and the California Department of Parks and Recreation parklands encompass approximately 250 acres. The City has an extensive network of existing trails for walking, hiking, jogging, and riding horses. For example, the California Hiking and Equestrian trail, owned and maintained by the California Department of Parks and Recreation, is the longest recognized trail within the city. There are less formally recognized trails and paths used by residents, including trails within the Oroville Wildlife Refuge (City of Oroville 2011).

12.2 Environmental Consequences

This section incorporates by reference the impact determinations presented for public services and public utilities in the Local Agencies' general plan EIRs (as described in more detail in Chapter 3, Section 3.3, *Resource Chapter Organization and NEPA/CEQA Requirements*).¹ The significance findings and mitigation measures of each of the general plan EIRs are compiled in Appendix C. The Lead Agencies have reviewed these analyses and found them to be appropriate for the purposes of this EIS/EIR.

12.2.1 Methods for Impact Analysis

The BRCP would not provide individual project approvals or entitlements for any private or public development or infrastructure projects. Accordingly, this EIS/EIR does not provide CEQA or NEPA coverage for individual covered activities and does not function as a *programmatic* or *umbrella* CEQA or NEPA document for regional development and infrastructure projects. The BRCP EIS/EIR evaluates only the adverse and beneficial environmental effects associated with the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. Accordingly, the methods for analyzing direct impacts on public services and public utilities are tailored to evaluate the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. This EIS/EIR also incorporates the impact

¹ These previous CEQA documents are available collectively for public review at the BCAG offices (2580 Sierra Sunrise Terrace, Suite 100 Chico, CA 95928-8441). Individual general plans and EIRs are also available at each of the respective land use agencies.

determinations of the Local Agencies' general plan EIRs to analyze indirect impacts on public services and public utilities.

In adopting the EIRs for the local general plans, each participating jurisdiction, except Gridley, determined that the programmatic impacts on public services and public utilities would be less than significant through the implementation of general plan policies and the adoption of identified mitigation measures. The City of Gridley 2030 EIR determined there would be significant and unavoidable impacts resulting from implementation of Gridley's general plan. It is assumed that all covered activities approved by the participating local jurisdictions would be consistent with the policies of their respective general plans and would be subject to any mitigation measures identified, such that impacts would be adequately mitigated to the extent identified in the general plan EIRs. Water and irrigation districts' activities have not been analyzed in previous CEQA documents. These activities include: rerouting of existing canals, replacement of water delivery structures, replacement of large weirs, mowing and trimming vegetation along service roads, and removing aquatic vegetation from canals. Potential impacts on public services and public utilities could occur primarily during construction or maintenance of these activities.

12.2.2 Significance Criteria

In accordance with Appendix G of the State CEQA Guidelines, the action alternatives would be considered to have a significant effect if they would result in any of the conditions listed below.

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
 - Fire protection.
 - Police protection.
 - Schools.
 - Parks.
 - Other public facilities.
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed.
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, state, and local statutes and regulations related to solid waste.

12.2.3 Impacts and Mitigation Measures

Alternative 1—No Action (No Plan Implementation)

As discussed in Section 2.3.1, *Alternative 1—No Action (No Plan Implementation)*, under Alternative 1, project proponents would apply for permits on a project-by-project basis, without a coordinated and comprehensive effort to minimize and mitigate biological impacts through the BRCP. Under the Alternative 1, urban development and public infrastructure projects would continue to occur pursuant to the approved general plans of the Local Agencies and BCAG's regional plan(s). These include residential, commercial, and industrial development as well as construction, maintenance, and use of urban infrastructure, parks, recreational facilities, public services, and similar types of urban land uses. Other activities that would occur under Alternative 1 are construction and maintenance of public infrastructure projects outside of urban areas, including public infrastructure projects in and over streams (e.g. bridge replacements). No regional conservation strategy or conservation measures would be implemented; therefore, benefits to and impacts on public services and utilities associated with the conservation strategy and conservation measures would not occur. The primary impact mechanism for impacts on public services and public utilities under Alternative 1 is implementation of the various general plans, including the expansions of waste and wastewater facilities and upgrades and maintenance to utilities (e.g., electrical) and the maintenance of water and irrigation districts' facilities.

Impact PS-1: Environmental impacts associated with the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection; police protection, schools, parks, or other public facilities (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville concluded that implementation of their general plans and associated projects would result in no impacts or less than significant impacts on public services and utilities (City of Oroville 2009b; Butte County 2010; City of Chico 2011b; City of Biggs 2013). Buildout of these jurisdictions would be subject to the goals, policies, and actions of the general plans, precluding approval of projects that would overload the existing infrastructure and service ratios.

The City of Gridley determined that implementation of its general plan would result in significant and unavoidable impacts on most public services and utilities. Although population growth would occur in the city, and general plan goals, policies, and actions require public utilities, service ratios, and infrastructure capacities to be met, the City concluded that there is no mitigation beyond the general plan policies available to reduce impacts on service ratios to a less-than-significant level (City of Gridley 2009).

Maintenance activities within the water and irrigation districts include rerouting existing canals. These facilities are meant to better meet water delivery objectives of the water and irrigation districts and would not result in a population increase. The construction and maintenance activities associated with these activities would increase the efficiency of existing utilities, providing benefit to

their users. Similarly, expansion of existing water and wastewater facilities would increase the efficiency of utilities, providing benefits to their users. No significant impacts would result from these activities.

NEPA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in a substantial decrease in service ratios for the City of Gridley due to the projected population increase. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Alternative 1, implementation of the City of Gridley's general plan, would result in a substantial decrease in service ratios for the City of Gridley due to the projected population increase. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact PS-2: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville general plan goals, policies, and actions would not exceed wastewater treatment requirements and thus would avoid significant impacts (City of Oroville 2009b; Butte County 2010; City of Chico 2011b; City of Biggs 2013). However, the City of Gridley determined that substantial adverse impacts on the environment would result from implementation of its general plan and as a result it would exceed wastewater treatment requirements. Operation of an expansion of any wastewater treatment facility in the Plan Area would require compliance with all Regional Water Quality Control wastewater treatment requirements; therefore, it is not expected to result in exceedances of those requirements.

NEPA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would exceed wastewater treatment requirements. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would exceed wastewater treatment requirements. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact PS-3: Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville general plan goals, policies, and actions would avoid significant impacts on the environment resulting from the construction or expansion of new water and wastewater treatment facilities (City of Oroville 2009b; Butte County 2010; City of Chico 2011b; City of Biggs 2013). However, the City of Gridley determined that substantial adverse impacts would result from implementation of its general plan as a result of population increases.

NEPA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in the construction of new water or waste water treatment facilities. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in the construction of new water or wastewater treatment facilities. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact PS-4: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville general plan goals, policies, and actions would avoid significant impacts on the environment resulting from the construction or expansion of stormwater drainage facilities (City of Oroville 2009b; Butte County 2010; City of Chico 2011b; City of Biggs 2013). However, the City of Gridley determined that substantial adverse impacts would result from implementation of its general plan as a result of the construction of new stormwater drainage facilities or the expansion of existing facilities.

NEPA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in the construction of new stormwater drainage facilities or the expansion of existing facilities. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact PS-5: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville general plan goals, policies, and actions would avoid significant impacts on water supplies available to serve the project from existing entitlements and resources (City of Oroville 2009b; Butte County 2010; City of Chico 2011b; City of Biggs 2013). However, the City of Gridley determined that sufficient water supplies would not be available or that new or expanded entitlements would be needed and, thus, substantial adverse impacts would result from implementation of its general plan.

NEPA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result insufficient water supplies or require new or expanded entitlements would be

needed. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in insufficient water supplies or require new or expanded entitlements would be needed. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact PS-6: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville general plan goals, policies, and actions would avoid significant impacts on wastewater treatment capacity (City of Oroville 2009b; Butte County 2010; City of Chico 2011b; City of Biggs 2013). However, the City of Gridley determined that wastewater treatment provider(s) may not have adequate capacity to serve the general plan area and thus substantial adverse impacts would result from implementation of its general plan.

NEPA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in the need for additional wastewater treatment services. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in the need for additional wastewater treatment services. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact PS-7: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville general plan goals, policies, and actions would avoid significant impacts on solid waste disposal capacity (City of Oroville 2009b; Butte County 2010; City of Chico 2011b; City of Biggs 2013). However, the City of Gridley determined that substantial adverse impacts would result from implementation of its general plan as a result of an increase in population and an increase in solid waste needs.

NEPA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in an increase in solid waste needs. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Alternative 1, specifically implementation of the City of Gridley's general plan, would result in an increase in solid waste needs. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Alternative 2—Proposed Action

Under Alternative 2, covered activities would include the existing, planned, and proposed land uses over which the Permit Applicants have land use authority; state and local transportation projects; maintenance of water delivery systems (e.g., WCWD canals and similar delivery systems); habitat restoration, enhancement, and management actions (conservation measures); and adaptive management and monitoring activities. Most covered activities would require individual permits and approvals pursuant to the Local Agencies' general plans and land use regulations or the requirements of the implementing agency (such as Caltrans and water and irrigation districts) and would undergo subsequent project-level CEQA review and relevant NEPA review for construction and operation-related impacts; some covered activities, however, may be exempted from environmental review requirements due to project characteristics including small projects or infill projects.

Impact PS-1: Environmental impacts associated with the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection; police protection, schools, parks, or other public facilities (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and would be significant and unavoidable. Impacts associated with other activities (e.g., water and irrigation districts' maintenance activities) would also be the same as under Alternative 1 and would be less than significant.

Implementation of the conservation strategy and conservation measures would not result in a population increase in the Plan Area. Population increase is the primary driver for increased demand for public services that would result in a substantial decrease in service ratios and for increased requirements for utilities distribution and infrastructure.

NEPA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in a substantial decrease in service ratios as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of decreased service ratios for the City of Gridley to less-than-significant levels. Although the conservation strategy would not result in a change to service ratios, the overall impact would be significant and unavoidable.

CEQA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in a substantial decrease in service ratios as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of decreased service ratios for the City of Gridley to less-than-significant levels. Although the conservation strategy would not result in a change to service ratios, the overall impact would be significant and unavoidable.

Impact PS-2: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and would be significant and unavoidable.

Implementation of the conservation strategy and conservation measures would not result in a population increase in the Plan Area; consequently, it would not exceed wastewater treatment requirements, and this impact would be less than significant.

NEPA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would exceed wastewater treatment requirements described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects for the City of Gridley to less-than-significant levels. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

CEQA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would exceed wastewater treatment requirements described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects for the City of Gridley to less-than-significant levels. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

Impact PS-3: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and would be significant and unavoidable.

Implementation of the conservation strategy and conservation measures would not entail the construction of new water or wastewater treatment facilities that would cause significant and avoidable environmental effects and the conservation strategy is not anticipated to demand water or wastewater services because it is a strategy that would establish lands to conserve covered species and habitat, and this impact would be less than significant.

NEPA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in the construction of new water or wastewater treatment facilities as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of construction of new water or wastewater treatment facilities for the City of Gridley to less-than-significant levels. Although the conservation strategy would not result in the construction of new water or wastewater treatment facilities of expansion of existing facilities that would cause significant environmental effects, the overall impact would be significant and unavoidable.

CEQA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in the construction of new water or wastewater treatment facilities as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of construction of new water or wastewater treatment facilities for the City of Gridley to less-than-significant levels. Although the conservation strategy would not result in the construction of new water or wastewater treatment facilities of expansion of existing facilities that would cause significant environmental effects, the overall impact would be significant and unavoidable.

Impact PS-4: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and would be significant and unavoidable.

Activities to Improve Urban Stormwater Water Quality (BRCP 5.4.4), supports the Cities of Chico, Oroville, Gridley, and Biggs in obtaining funding through federal and state grants and other sources to implement programs to support compliance with National Pollutant Discharge Elimination System (NPDES) stormwater permits for municipal separate storm sewer systems (MS4s). Actions under this conservation measure associated with funding could consist of physical changes to the stormwater system or planning and documentation. However, as the physical actions (i.e., changes to stormwater system) would be in support of compliance with the Cities' NPDES and MS4 permits and project-specific NPDES permits and thus are activities that would occur under the implementation of these Cities' general plans. Therefore, any potentially significant impacts associated with these types of activities are previously disclosed in the general plan EIRs. In addition, the activities associated with this conservation measure would not result in additional potentially significant environmental effects beyond those already disclosed in other resource chapters of this document (e.g., construction activities producing air emissions disclosed in Chapter 5, *Air Quality and Climate Change*). Therefore, significant environmental effects have been disclosed that might occur as a result of these activities.

NEPA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in the construction of stormwater facilities as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of new stormwater facilities for the City of Gridley to less-than-significant levels. Although the conservation strategy could result in stormwater drainage facility modifications, these modifications are not expected to cause significant and avoidable environmental effects, and the overall impact would be significant and unavoidable.

CEQA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in the construction of stormwater facilities as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of new stormwater facilities for the City of Gridley to less-than-significant levels. Although the conservation strategy could result in stormwater drainage facility modifications, these modifications are not expected to cause significant and avoidable environmental effects, and the overall impact would be significant and unavoidable.

Impact PS-5: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed (NEPA: significant and unavoidable CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and would be significant and unavoidable.

Implementation of the conservation strategy and conservation measures would not create additional demand on water supplies because it would establish conservation areas to conserve covered species and habitat.

NEPA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in insufficient water supplies or require new or expanded entitlements as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of insufficient water supplies or new or expanded entitlements for the City of Gridley to less-than-significant levels. Although the conservation strategy would not create additional demand on water supplies, the overall impact would be significant and unavoidable.

CEQA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in insufficient water supplies or require new or expanded entitlements as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of insufficient water supplies or new or expanded entitlements for the City of Gridley to less-than-significant levels. Although the conservation strategy would not create additional demand on water supplies, the overall impact would be significant and unavoidable.

Impact PS-6: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and would be significant and unavoidable.

Implementation of the conservation strategy and conservation measures would not result in a population increase; therefore, it would not increase demand for wastewater treatment capacity, and this impact would be less than significant.

NEPA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in the need for additional wastewater treatment services as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of additional wastewater treatment services for the City of Gridley to less-than-significant-levels. Although the conservation strategy would not increase demand for wastewater treatment capacity, the overall impact would be significant and unavoidable.

CEQA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in the need for additional wastewater treatment services as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of additional wastewater treatment services for the City of Gridley to less-than-significant-levels. Although the conservation strategy would not increase demand for wastewater treatment capacity, the overall impact would be significant and unavoidable.

Impact PS-7: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and would be significant and unavoidable.

Because implementation of the conservation strategy and conservation measures would not result in a population increase, it would not increase demand for solid waste disposal needs, and this impact would be less than significant.

NEPA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in an increase in solid waste needs as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of increased solid waste needs for the City of Gridley to less-than-significant levels. Although the conservation strategy would not increase demand for solid waste disposal needs, the overall impact would be significant and unavoidable.

CEQA Determination: Alternative 2, specifically the implementation of the City of Gridley's general plan, would result in an increase in solid waste needs as described for Alternative 1, and implementation of Gridley's general plan policies or mitigation measures would not reduce the effects of increased solid waste needs for the City of Gridley to less-than-significant levels. Although the conservation strategy would not increase demand for solid waste disposal needs, the overall impact would be significant and unavoidable.

Alternative 3—Reduced Development/Reduced Fill

Alternative 3 is similar to Alternative 2 except that it uses the various general plan EIR reduced development alternatives as described in Chapter 2, *Proposed Action and Alternatives*, to create a single reduced development footprint. Covered activities under this alternative would be similar to those described in the BRCP but would be limited to the reduced development footprint for a reduced permit term of 30 years. The reduced footprint and reduced land conservation would result in fewer built structures and less ground disturbance.

It is anticipated that under Alternative 3, fewer acres of natural communities would be conserved because reduced development would provide reduced funding for the conservation strategy. However, it is anticipated that the conservation measures would be the same because the reduction of fill would be achieved through the reduced development footprint of the Local Agencies' general plans rather than through modification of the conservation measures. Consequently, the impacts related to implementation of the conservation strategy and conservation measures would be the same as under Alternative 2.

Impact PS-1: Environmental impacts associated with the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection; police protection, schools, parks, or other public facilities (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be similar to but potentially less extensive than those under Alternative 2 as a result of less development and potentially fewer residents; however, impacts would still be significant and unavoidable.

Implementation of the conservation strategy and conservation measures would not result in a population increase in the Plan Area. Activities within the water and irrigation districts could entail a modest decrease compared to the same activities under Alternative 2; however the impact would still be similar as compared to Alternative 2 and would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

Impact PS-2: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be similar to but less extensive than those under Alternative 2; however, impacts would still be significant and unavoidable.

Impacts associated with implementation of the conservation strategy and conservation measures would be the same as under Alternative 2, and the impact would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

Impact PS-3: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be similar to but potentially less extensive than those under Alternative 2 and would be significant and unavoidable.

Impacts associated with implementation of the conservation strategy and conservation measures would be the same as under Alternative 2, and the impact would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that would cause significant environmental effects, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that would cause significant environmental effects, the overall impact would be significant and unavoidable.

Impact PS-4: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be similar to but potentially less extensive than those under Alternative 2 as a result of less development occurring; however, the impact would still be significant and unavoidable.

Impacts associated with implementation of the conservation strategy and conservation measures would be the same as under Alternative 2, although they may be less extensive because there may be fewer changes to the stormwater system as a result of reduced development in the Plan Area. The impact would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not necessitate the construction of new or expansion of existing stormwater drainage facilities that would cause significant and avoidable environmental effects, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not necessitate the construction of new or expansion of existing stormwater drainage facilities that would cause significant and avoidable environmental effects, the overall impact would be significant and unavoidable.

Impact PS-5: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be similar to but potentially less extensive than those under Alternative 2; however, the impact would still be significant and unavoidable.

Implementation of the conservation strategy and conservation measures would not create additional demand on water supplies, and the impact would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not create additional demand on water supplies, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not create additional demand on water supplies, the overall impact would be significant and unavoidable.

Impact PS-6: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be similar to but potentially less extensive than those under Alternative 2; however, the impact would still be significant and unavoidable.

Because implementation of the conservation strategy and conservation measures would not result in a population increase, it would not increase demand for wastewater treatment capacity, and the impact would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for wastewater treatment capacity, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for wastewater treatment capacity, the overall impact would be significant and unavoidable.

Impact PS-7: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be similar to but potentially less extensive than those under Alternative 2; however, the impact would still be significant and unavoidable.

Because implementation of the conservation strategy and conservation measures would not result in a population increase, it would not increase demand for solid waste disposal needs, and the impact would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for solid waste disposal needs, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for solid waste disposal needs, the overall impact would be significant and unavoidable.

Alternative 4—Greater Conservation

Alternative 4 would be similar to Alternative 2 except that under Alternative 4, the conservation strategy would include the conservation of an additional 9,850 acres of grassland and 35,310 acres of riceland. Alternative 4 would include the same conservation measures as Alternative 2, and all other acreage protection targets for natural communities/land types would be the same as described under Alternative 2. Therefore, impact mechanisms for public services and public utilities would be similar to those described for Alternative 2.

Impact PS-1: Environmental impacts associated with the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection; police protection, schools, parks, or other public facilities (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2 and would be significant and unavoidable.

. The increased conservation under Alternative 4 would not increase the population and the demand on public services and utilities and therefore the impacts associated would be similar to those described under Alternative 2. The impacts would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in a change to service ratios, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in a change to service ratios, the overall impact would be significant and unavoidable.

Impact PS-2: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2 and would be significant and unavoidable.

The increased conservation under Alternative 4 would not increase the population and consequently would not result in a need for wastewater treatment; therefore the impacts associated would be similar to those described under Alternative 2. The impacts would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in exceeding wastewater treatment requirements, the overall impact would be significant and unavoidable.

Impact PS-3: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2 and would be significant and unavoidable.

The increased conservation under Alternative 4 would not increase the population and consequently would not result in a need for wastewater treatment facilities; therefore, the impacts associated would be similar to those described under Alternative 2. The impacts would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that would cause significant environmental effects, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not result in the construction of new water or wastewater

treatment facilities of expansion of existing facilities that would cause significant environmental effects, the overall impact would be significant and unavoidable.

Impact PS-4: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2 and would be significant and unavoidable.

The increased conservation under Alternative 4 would not result in the need for stormwater drainage facilities; therefore, the impacts associated would be similar to those described under Alternative 2. The impacts would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not necessitate the construction of new or expansion of existing stormwater drainage facilities that would cause significant and avoidable environmental effects, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not necessitate the construction of new or expansion of existing stormwater drainage facilities that would cause significant and avoidable environmental effects, the overall impact would be significant and unavoidable.

Impact PS-5: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2 and would be significant and unavoidable.

The increased conservation under Alternative 4 would not result in a need for additional water supplies; therefore the impacts associated would be similar to those described under Alternative 2. The impacts would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not create additional demand on water supplies, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not create additional demand on water supplies, the overall impact would be significant and unavoidable.

Impact PS-6: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2 and would be significant and unavoidable.

The increased conservation under Alternative 4 would not increase the population and consequently would not result in a need for wastewater treatment facilities as identified in Impact PS-3; therefore the impacts associated would be similar to those described under Alternative 2. The impacts would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for wastewater treatment capacity, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for wastewater treatment capacity, the overall impact would be significant and unavoidable.

Impact PS-7: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2 and would be significant and unavoidable.

The increased conservation under Alternative 4 would not increase the population and consequently would not result in a need for landfill facilities; therefore, the impacts associated would be similar to those described under Alternative 2. The impacts would be less than significant.

NEPA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for solid waste disposal needs, the overall impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as under Alternative 2. Although the conservation strategy would not increase demand for solid waste disposal needs, the overall impact would be significant and unavoidable.

12.2.4 Cumulative Analysis

Methods and Approach

The cumulative analysis for public services and utilities is a qualitative evaluation considering the past, present, and reasonably foreseeable future projects listed in Chapter 3, Section 3.3.2, under *Cumulative Impacts*; the general plan EIRs' impact determinations for cumulative impacts, where applicable; and the impact determinations identified above for the various alternatives.

This analysis examines whether the covered activities that were not analyzed in previous environmental documents would result in a cumulatively considerable incremental contribution that, when combined with the past, present, and reasonably foreseeable future projects, would result in a cumulatively significant impact.

Cumulative Impacts

Past and present projects have resulted in an increase in water supply development in the Plan Area. As disclosed in Chapter 3, Section 3.3.2, under *Cumulative Impacts*, and Section 12.1.2, *Environmental Setting*, the Plan Area has numerous water distribution facilities that serve

agricultural and consumptive needs. These projects have provided beneficial cumulative effects for water distribution to businesses and residents relying on this resource. Past and present projects have resulted in the need and demand for all public services and utilities within the Plan Area, and these types of services have been accommodated by Local Agencies as their populations expand. Therefore, there is a beneficial cumulative effect for services such as police and fire and services such as wastewater, solid waste, and stormwater management.

Alternative 1—No Action (No Plan Implementation)

The City of Gridley determined that cumulatively considerable and significant impacts on public services and utilities would occur within its jurisdiction; no other local jurisdiction made this determination. Consequently, past, present, and reasonably foreseeable future projects—including implementation of the general plans—would result in cumulatively considerable and significant impacts on public services and utilities. Accordingly, Alternative 1 would result in an incremental contribution to cumulative impacts.

Alternative 2—Proposed Action

The City of Gridley determined that cumulatively considerable and significant impacts on public services and utilities would occur within its jurisdiction; no other local jurisdiction made this determination. Consequently, past, present, and reasonably foreseeable future projects—including implementation of the general plan—would result in cumulatively considerable and significant impacts on public services and utilities. Although covered activities associated with implementation of the conservation strategy and conservation measures would have less-than significant effects on public services and utilities, Alternative 2 in its entirety would result in an incremental contribution to cumulative impacts.

Alternative 3—Reduced Development/Reduced Fill and Alternative 4—Greater Conservation

The cumulative effects under these alternatives would be similar to those under Alternative 2. While Alternative 3 would likely result in slightly reduced effects because of its reduced development footprint, the City of Gridley concluded that the reduced development alternative would nevertheless result in significant and unavoidable impacts on public services and utilities. Consequently, neither Alternative 3 nor Alternative 4 would result in an incremental contribution to cumulative impacts on public services and utilities.

12.3 References

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Chapter 13

Recreation, Open Space, and Visual Resources

13.1 Affected Environment

This section describes the regulatory and physical environmental setting for recreation, open space, and visual resources in the Plan Area.

13.1.1 Regulatory Setting

Federal

Sacramento, Delevan, Colusa, and Sutter National Wildlife Refuges Final Comprehensive Conservation Plan, U.S. Fish and Wildlife Service

The Comprehensive Conservation Plan prepared for the Sutter National Wildlife Refuge provides a summary of legal and policy guidance governing the refuge. The relevant guidance includes the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997; Refuge Recreation Act of 1962; selected portions of the Code of Federal Regulations, and the Service Manual (U.S. Fish and Wildlife Service 2009a). The National Wildlife Refuge System Improvement Act establishes six priority public uses of wildlife refuges: hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation. Providing and enhancing opportunities to participate in these recreational activities is a goal of the Refuge System as defined by the *Refuge System Mission, Goals, and Refuge Purposes Policy* (601 FW1 of the Service Manual).

State

Central Valley Vision, California State Parks

California State Parks has developed Central Valley Vision, a plan to help guide parkland acquisition and development of parkland over a 20-year planning horizon (California State Parks 2009). The Draft Implementation Plan calls for tripling the number of campsites, doubling the number of picnic sites, and doubling the acres of park land in the Central Valley (California State Parks 2009). Most of the existing and proposed parks will be located along rivers.

Lake Oroville State Recreation Area General Plan, California State Parks

The general plan discusses resource management, site development, and the provision of recreational facilities for the Lake Oroville State Recreation Area (California State Parks 2004). Goals listed in the general plan are designed to provide and increase recreational access and educational opportunities in the recreation area, as well as develop new trails that provide regional, park, and local connections.

Gray Lodge Wildlife Area Management Plan, California Department of Fish and Wildlife

The Gray Lodge Wildlife Area Management Plan describes the expansion of, improvements to, and ongoing maintenance of the Gray Lodge wildlife area. The document provides several goals and objectives that relate to recreation (California Department of Fish and Game 1989). These include those excerpted below.

Hunting Programs Goal 1: Provide maximum opportunity for legal hunting of game species in season.

Warmwater Angling Goal 1: Optimize public use opportunity of warmwater game fish.

Nonconsumptive Uses Goal 1: Accommodate nonconsumptive uses of the wildlife area and the wildlife resource.

Goal 2: Educate the public about wildlife ecology and management.

Upper Butte Basin Wildlife Area Land Management Plan, California Department of Fish and Wildlife

The Upper Butte Basin Wildlife Area Land Management Plan describes the management goals and criteria for the wildlife area, and emphasizes an ecosystem approach for managing the diverse habitat communities and associated species within the wildlife area (California Department of Fish and Game 2009b). The goals focus on facilities maintenance and development, staffing and operational funding, and water supply. Relevant goals from the plan are meant to maintain, manage, and enhance existing ecosystems, as well as control of invasive species that negatively impact wildlife or special-status species. The management plan also calls for continuing to provide existing public use programs and allowing compatible public recreation where and when appropriate.

California Scenic Highway Program

The intent of the California Scenic Highway Program (Streets and Highway Code Section 260) of the California Scenic Highway Program is to protect and enhance California's natural beauty and to protect the social and economic values provided by the state's scenic resources. SR 70 is an Eligible State Scenic Highway, but is not officially designated for protections (Scenic Byways 2013; California Department of Transportation 2013). Therefore, there are no roadways in or near the Plan Area that are designated as scenic highways worthy of protection for maintaining and enhancing scenic viewsheds.

Local

Butte County

General Plan

Butte County's General Plan 2030(Butte County 2012) is comprised of multiple elements meant to govern the vision for growth in the county. Goals, policies, and actions are identified within the various elements that protect, maintain, and enhance recreation, open space, and visual resources. These goals, policies, and actions are described below.

Recreation and Open Space

The General Plan Conservation and Open Space Element provides background information describing the importance of conserving open space to protect the county's biological communities, wildlife areas, and migratory deer herds (Butte County 2012). This element also provides goals, policies, and actions related to open space. In addition, the Public Facilities and Services Element includes a discussion of parks and recreation in the county. Goals, policies, and actions relating to recreation and open space from both of these elements are excerpted below.

Goal COS-6: Engage in cooperative planning efforts to protect biological resources.

Policy COS-P6.1: The county shall coordinate with applicable federal, State, regional, and local agencies on natural resources and habitat planning.

Action COS-A6.1: Continue to work with the Butte County Association of Governments and the five municipalities to develop and implement the Butte Regional Habitat Conservation Plan and Natural Community Conservation Plan, and subsequently update as necessary.

Goal COS-7: Conserve and enhance habitat for protected species and sensitive biological communities.

Policy COS-P7.1: Conservation easements that protect habitat areas, habitat corridors, and sensitive biological resources shall be promoted.

Policy COS-P7.3: Creeks shall be maintained in their natural state whenever possible, and creeks and floodways shall be allowed to function as natural flood protection features during storms.

Goal COS-8: Maintain and promote native vegetation.

Policy COS-P8.1: Native plants shall be used wherever possible on County-owned and – controlled property.

Goal COS-9: Protect identified special-status plant and animal species.

Goal COS-10: Facilitate the survival of deer herds in winter and critical winter migratory deer herd ranges.

Goal PUB-P6: Support a comprehensive and high-quality system of recreational open space and facilities.

Action PUB-A6.2: Coordinate with park and recreation districts to allow the development of park and recreation facilities on publicly-owned land.

Goal PUB-7: Encourage local, regional, and State parks providers to engage in coordinate and cooperative planning efforts.

Policy PUB-P7.1: The County shall coordinate with the municipalities, park and recreation districts, and school districts to plan and develop additional regional and community parks, support and coordinate park master plans, coordinate financing for recreation and park facilities, and plan for the distribution of federal and State funds for recreation and park programs and facilities.

Policy PUB-P7.2: Implementation and development of recreation and park facilities within park and recreation district boundaries shall be consistent with the applicable district's master plans.

Visual Resources

General Plan 2030 elements establish goals, actions, and policies that relate to the visual character and quality of the county. Specifically, policies from the Economic Development Element, Agriculture Element, Water Resources Element, Conservation and Open Space Element, and Public Facilities and Services Element help to establish the types of visual resources viewers currently experience and

will experience during the implementation of the general plan in the county. These goals, actions, and policies are excerpted below.

ED-P2.3: The County shall promote agritourism, such as through special events and themed “farm trails” and routes within Butte County’s agricultural areas.

AG-P2.1: The County shall work with the Local Agency Formation Commission (LAFCO) to create and maintain a consistent approach to the conservation of agricultural land through the designation of reasonable and logical Sphere of Influence (SOI) boundaries.

W-P6.1: Any alteration of natural channels for flood control shall retain and protect riparian vegetation to the extent possible while still accomplishing the goal of providing flood control. Where removing existing riparian vegetation is unavoidable, the alteration shall allow for reestablishment of vegetation without compromising the flood flow capacity.

COS-P7.3: Creeks shall be maintained in their natural state whenever possible, and creeks and floodways shall be allowed to function as natural flood protection features during storms.

COS-P8.1: Native plant species shall be protected and planting and regeneration of native plant species shall be encouraged, wherever possible, in undisturbed portions of development sites.

COS-P8.2: New landscaping shall promote the use of xeriscape and native tree and plant species, including those valued for traditional Native American cultural uses.

COS-P8.3: Native plants shall be used wherever possible on County owned and controlled property.

COS-P8.4: Introduction or spread of invasive plant species during construction of development projects shall be avoided by minimizing surface disturbance; seeding and mulching disturbed areas with certified weed-free native mixes; and using native, noninvasive species in erosion control plantings.

COS-P16.2: Impacts to the traditional Native American landscape shall be considered during California Environmental Quality Act or National Environmental Policy Act review of development proposals.

COS-P17.1: Views of Butte County’s scenic resources, including water features, unique geologic features and wildlife habitat areas, shall be maintained.

Goal COS-18: Protect and enhance scenic areas adjacent and visible from highways for enjoyment by residents and visitors.

PUB-P8.3: The development of abandoned railroad rights-of-way, levee tops, utility easements and waterways for new multi-use trails shall be pursued where appropriate.

Countywide Bikeway Master Plan

The County adopted a Bicycle Master Plan in 2011. The Master Plan identifies eight main goals related to providing a safe and efficient biking system that facilitates biking for recreation and commuting (Butte County Public Works 2011).

Butte County Outdoor Lighting Standards

The Butte County Zoning Ordinance includes standards for outdoor lighting in residential areas. Section 24-241 requires that all outdoor lighting in residential areas “be located, adequately shielded and directed such that no direct light falls outside the property perimeter, or into the public right-of-way.”

City of Biggs

General Plan

The City of Biggs General Plan (City of Biggs 2011) is comprised of multiple elements meant to govern the vision for growth in the city. Goals, policies, and actions are identified within the various elements that protect, maintain, and enhance recreation, open space, and visual resources. These goals, policies, and actions are described below.

Recreation and Open Space

The Recreation and Open Space Element of the general plan has several goals and policies affecting recreation, including ones related to bicycle and park facilities. These goals and policies are excerpted below.

Goal CR-1: Provide a range of parks and recreational facilities and opportunities for all members of the community.

Policy CR-1.2: Partner with local service providers, community organizations and other agencies to provide parks and recreation facilities.

Policy CR-1.3: Maintain and improve the physical condition and amenities of parks and recreational buildings and facilities.

Visual Resources

The Community Enhancement Element of the general plan addresses the aesthetic and visual character and quality of the city. It emphasizes the city's geographical, historical, and cultural features that contribute to the city's visual character. This plan element provides direct guidance regarding design, streetscapes, and buildings, with the intent of promoting and expanding the physical qualities of the environment. There are no goals or policies related to the natural environment or urban-rural or urban-agricultural edges.

City of Chico

General Plan

The City of Chico General Plan (City of Chico 2011a) is comprised of multiple elements meant to govern the vision for growth in the city. Goals, policies, and actions are identified within the various elements that protect, maintain, and enhance recreation, open space, and visual resources. These are described below.

Recreation and Open Space

The Parks, Public Facilities and Services Element addresses the City of Chico's needs for its parks and establishes goals, policies, and actions that are meant to direct the planning, enhancement, and maintenance of parks, greenways, and preserves throughout the general plan study area (City of Chico 2011a). Relevant goals from this element are designed to continue cooperative efforts with local agencies and utilize creeks, greenways, and preserves as a framework for a system of open space. The Open Space and Environment Element addresses the City's focuses on the preservation and enhancement of the natural environment and limiting the adverse effects on environmental resources from implementation of the general plan. Relevant goals from this element, excerpted

below, are designed to preserve native species and habitat through land use planning and to connect the community through the preservation of open space and greenways.

Goal PPFS-1: Continue cooperative efforts with the Chico Area Recreation and Park District and the Chico Unified School District to provide a broad range of high quality parks and recreation facilities and services for all residents.

Goal PPFS-2: Utilize creeks, greenways, and preserves a framework for a system of open space.

Goal OS-1: Protect and conserve native species and habitats

Goal OS-2: Connect the community with a network of protected and maintained open space and creekside greenways.

Visual Resources

The Open Space and Environment Element of the general plan has goals and policies that address the visual character and quality of the city by maintaining and protecting certain types of landscapes. Additionally, the Community Design Element provides guidance on the physical elements and spaces that shape the city. Relevant goals and policies in these two elements are excerpted below.

Goal OS-5: Preserve agricultural resources for the production of local food and the maintenance of Chico's rural character

Goal OS-6: Provide a healthy and robust urban forest.

Goal CD-1: Strengthen Chico's image and sense of place by reinforcing the desired form and character of the community

Policy CD-1.1: Incorporate and highlight natural features such as scenic vistas, creeks, and trees as well as cultural resources such as walk walls into project designs.

Tree Preservation Ordinance

The City Tree Preservation Ordinance (Chico Municipal Code, Chapter 16.66) defines a *tree* or *trees* as the following.

- Any live woody plant having a single perennial stem of 24 inches or more in diameter, or multi-stemmed perennial plant greater than 15 feet in height having an aggregate circumference of 40 inches or more, measured at four feet six inches above adjacent ground.
- Tree or trees required to be preserved as part of an approved building permit, grading permit, demolition permit, encroachment permit, use permit, tentative or final subdivision map.
- Tree or trees required to be planted as a replacement for unlawfully removed tree or trees.
- "Tree" or "trees" does not mean Ailanthus, Chinese tallow, or box elder.

All native oak trees over six inches diameter at breast height (dbh) on the project site shall be preserved to the maximum extent practical.

Municipal Code Section 19.60.050

This section of the municipal code requires that exterior lighting be shielded or recessed so that direct glare and reflections are confined to the maximum extent feasible within the boundaries of the site. All light fixtures must be appropriate in scale, intensity, and height to the use that they are serving.

City of Gridley

General Plan

The City of Gridley General Plan (City of Gridley 2010) is comprised of multiple elements meant to govern the vision for growth in the city. Goals, policies, and actions are identified within the various elements that protect, maintain, and enhance recreation, open space, and visual resources. These goals, policies, and actions are described below.

Recreation and Open Space

The Circulation Element and Open Space Element of the general plan establish several goals and policies affecting recreation in the city, including ones related to bicycle and park facilities (City of Gridley 2010). These goals and policies are excerpted below.

Circulation Goal 1: To ensure that new development accommodates safe and pleasant routes for pedestrians, bicyclists, and drivers.

Circulation Goal 2: To retrofit existing development for increased pedestrian, bicycle, and transit access.

Open Space Goal 1: To create high-quality, functional open space corridors.

Open Space Goal 2: To provide visual screening, buffering, trails, and drainage in open space corridors along the railroad and Highway 99 in the Planned Growth Area.

Open Space Goal 3: To provide for drainage, pedestrian and bicycle circulation, and landscaping in open space corridors within neighborhoods.

Open Space Goal 5: Maintain, expand, and upgrade facilities in existing recreation areas.

Open Space Policy 5.6: The City will explore opportunities to improve ongoing public access to, and expand recreational opportunities related to the Feather River on property owned by the City and used for wastewater treatment.

Open Space Goal 6: To provide recreation facilities and programs that meet the needs of existing and future residents.

Visual Resources

The Conservation Element addresses the management, use, and development of natural resources within the city. It provides goals and policies that affect the city's overall landscape, which comprises the visual character and quality experienced by viewers. The Open Space Element contains goals and policies that provide guidance regarding numerous aspects of multi-use open space corridors, including aesthetic benefits. The Community Character and Design Element is meant to preserve and enhance specific characteristics of the city (e.g., historical or natural) that contribute to its character, including its aesthetic character. Relevant goals and policies from these elements are excerpted below.

Conservation Policy 2.2: Native, drought tolerant landscaping will be used, to the maximum extent feasible, in new City parks and open space and for landscaping within new rights of way as well as within new developments, including commercial, industrial, and residential projects.

Conservation Policy 2.3: The City will explore opportunities in existing City-owned parks, open space, rights-of-way, and other City properties to replace landscaping with native, drought tolerant landscaping.

Conservation Policy 3.3: The City will require that waterways and floodplains are maintained in their natural condition, wherever possible.

Conservation Policy 3.4: Existing swales and sloughs shall be preserved, restored, and used for naturalized stormwater drainage in the context of new development to the maximum extent feasible.

Conservation Policy 5.2 New development shall preserve open space corridors alongside agricultural drainage ditches.

Conservation Policy 5.5: New developments shall preserve and plant native or naturalized vegetation and avoid the introduction of invasive exotic species.

Conservation Policy 9.1: The City will consider views of the Sutter Buttes in the orientation of new roadways and trails, and maintain visual connections, where feasible.

Conservation Policy 10.1: The City will support and encourage practices that reduce light pollution and glare, and preserve views of the night sky.

Open Space Policy 1.5: Within open space corridors, mature trees, including old orchard trees shall be preserved, wherever feasible, as new trees are planted to ensure an ongoing tree canopy.

Open Space Policy 1.6: Existing vegetation in open space corridors should be preserved, where it could provide ongoing habitat benefits or stormwater filtering. Noxious weeds, invasive species, and unhealthy plants can be removed, as well as vegetation posing an issue for public health or safety.

Open Space Policy 1.7: Newly planted landscaping in open space corridors shall be selected and designed to enhance habitat, provide aesthetic value, filter pollutants out of, and slow down stormwater runoff, and minimize ongoing landscape maintenance and watering.

Design Goal 7: To provide attractive and functional landscaping in neighborhoods.

City of Gridley Bicycle Plan

The City of Gridley Bicycle Plan identifies goals, objectives, and measures for developing a bicycle circulation network that ties into the region beyond the city and provides access to the Gray Lodge Wildlife Area, the city of Biggs, and the Feather River. The plan establishes several goals, objectives, and implementation measures affecting recreation facilities for bikes, specifically with respect to providing a safe, effective, and efficient bicycle circulation system (City of Gridley 2003:16).

Municipal Code Section 17.38.909

This section of the municipal code prohibits light spillage of any subject property onto adjacent properties.

City of Oroville

General Plan

The City of Oroville General Plan (City of Oroville 2009a) is comprised of multiple elements meant to govern the vision for growth in the city. Goals, policies, and actions are identified within the various elements that protect, maintain, and enhance recreation and open space, as well as visual resources. These are described below.

Recreation and Open Space

Recreation, as it relates to open space and natural resources, is discussed in the Open Space, Natural Resources, and Conservation Element. This element focuses on goals, policies, and actions that improve the quantity, quality, and character of the open space and natural resources of the city and discusses open space for outdoor recreation and scenic resources. Relevant goals and policies are excerpted below.

Goal OPS-1: Provide a comprehensive, high-quality system of recreation open space and facilities to maintain and improve the quality of life for Oroville residents.

P1.2: Develop the Thermalito Forebay and Afterbay as a destination water recreation park defining the western boundary of the community, in accordance with the State's original master plan for recreation development associated with the Federal Energy Regulatory Commission (FERC) permit.

P1.4: Support appropriate management of local lakes and reservoirs and releases from these water bodies to sustain recreational use and an appropriate environment that maintains natural conditions for aquatic and other species.

Goal OPS-2: Engage in coordinated and cooperative planning efforts between local, regional and State park providers.

P2.5: Encourage coordinated park and trail development and operations efforts with the State Department of Parks and Recreation, local school districts, and private purveyors in establishing and maintaining park and recreation facilities within and adjacent to the Planning Area.

Goal OPS-4: Support the development of an extensive, interconnected multi-use trail system for Oroville.

P4.3: Establish agreements with private entities and public agencies for the development and maintenance of trails through their property.

P4.4: Seek dedication of existing trails and confirmation of prescriptive rights for trails that exist on private property.

Visual Resources

Two elements, Open Space, Natural Resource, and Conservation and Community Design, discuss the aesthetic character and quality of the city. The Open Space, Natural Resources and Conservation Element identifies important open space and natural resources in the city and frames goals, policies, and actions such that future development will respect the scenic qualities of these areas, including wildlife areas and agricultural areas. Specifically, it discusses open space for scenic resource value. The Community Design Element focuses on the city's physical built environment and seeks to guide development to maintain and enhance aesthetic quality and character. Relevant goals and policies are excerpted below.

Goal OPS-5: Maintain and enhance the quality of Oroville's scenic and vision resources

P5.3: Maintain the scenic view of the Feather River and Table Mountain

P5.4: Require new light fixtures within new development to be designated and sited so as to minimize light pollution, glare, and light trespass into adjoining properties.

Goal OPS-6: Preserve the maximum feasible amount of agriculturally productive land, in order to maintain agriculture's contributions to the local economy, lifestyle, air quality, habitat value, and sense of Oroville's heritage.

P6.2: Cooperate with Butte County to retain agriculture uses on lands within the Oroville sphere of influence prior to their annexation to the city.

Goal CD-2: Maintain and enhance the quality of Oroville's landscape, streetscape, and gateways.

P2.3: Encourage imaginative design concepts in woodland areas to perpetuate and preserve native trees.

P2.4: Use appropriate landscaping to reduce effects of surface runoff in developing areas, with an emphasis on native and drought-resistant species, minimization of impervious surface, and provisions for recharge.

P2.6: Encourage the planting of trees and other landscape features along Oroville's corridors to make them interesting, appealing and inviting.

13.1.2 Environmental Setting

The environmental setting for recreation, open space, and visual resources describes the existing conditions for recreation and open space managed and operated by federal and state agencies, the County, and the Cities within the Plan Area. It also describes the existing visual character and quality of the county and cities within the Plan Area.

Recreation and Open Space in the Plan Area

Federal and State

Large open space and recreation areas in the county, within the Plan Area, are owned and managed by various federal and state agencies, as described below.

- Bidwell Mansion, a memorial to John and Annie Bidwell, is a historic Victorian House Museum in Chico that is managed by California State Parks (California State Parks 2011a).
- Bidwell-Sacramento River State Park is west of Chico along the Sacramento River and primarily used for boating and fishing. The park is managed by California State Parks and also has the Indian Fisher, Big Chico, and Pine Creek day use areas and the Irvine Finch river access (California State Parks 2011b).
- Clay Pit State Vehicular Recreation Area is 3 miles west of Oroville and managed by California State Parks. The recreation area provides off-road recreation and consists of a large shallow pit ringed with low hills (California State Parks 2011c).
- Gray Lodge Waterfowl Management Area is the southwestern end of the county and managed by CDFW. The area consists of 9,100 acres and provides wildlife viewing year-round (California Department of Fish and Game 1989). Hunting is allowed during the regulated hunting season, as well as fishing in the spring and summer. The area also provides educational programs and nature trails.
- Lake Oroville State Recreation Area is northeast of Oroville and managed by California State Parks. The recreation area provides opportunities for camping, picnicking, horseback riding, hiking boating, fishing, and swimming (California State Parks 2011d). The area also includes the Feather River Fish Hatchery, built by DWR to mitigate for the loss of spawning areas for salmon and steelhead.
- Oroville Wildlife Area, managed by CDFW, is northeast of Oroville (California Department of Fish and Game 2009a). The 11,869 acre wildlife area consists primarily of riparian woodland along the Feather River, as well as grasslands around the Thermalito Afterbay, which is north of

Oroville and managed by DWR. The area provides opportunities for fishing, horseback riding, and camping, and also has a shooting range.

- North Central Valley Wildlife Management Area is located within 11 counties in the Sacramento Valley. The portions of it that are within Butte County are along the Sacramento River. The area is managed by USFWS and consists of conservation easements acquired on privately-owned wetlands that have been developed for waterfowl and other wetland-related wildlife (U.S. Fish and Wildlife Service 2009b). The refuge is closed to the public.
- Sacramento River National Wildlife Refuge Complex consists of five national wildlife refuges and three wildlife management areas located throughout the Sacramento Valley (U.S. Fish and Wildlife Service 2011). The portions of the refuge complex that are within Butte County are along the Sacramento River. The refuge is managed by USFWS and provides resting and feeding areas for migratory birds along the Pacific Flyway.
- Upper Butte Basin Wildlife Area is along the Sacramento River. The wildlife area is managed by CDFW and consists of three units: the 1,521-acre Llano Seco Unit, the 4,010-acre Howard Slough Unit, and the 3,762-acre Little Dry Creek Unit (California Department of Fish and Game 2011). The area provides opportunities for fishing, camping, and bird watching.

Butte County

Butte County provides numerous recreational areas and facilities due to its diverse ecosystems, which offer a wide range of recreation opportunities. However, a large amount of these lands are inaccessible to the public, and they are classified as open space. There are five recreation and park districts that encompass most of the county's land, of which, three are fully within the Plan Area: Chico Area Recreation and Park District, Durham Recreation and Park District, and Richvale Recreation and Park District. There is a section of the Feather River Recreation and Park District that extends to the east and south east of Lake Oroville that is within the Plan Area. Table 13-1 provides the acreages of developed and undeveloped parks within these Park Districts in the Plan Area.

In addition to the parks and recreational facilities listed in Table 13-1, there is one Class I bike trail in the unincorporated area of the county—the Freeman Trail—which is on the Thermalito Afterbay levee in the far northeastern portion of the study area. The trail is connected to the Oroville State Recreation Area. A Class I bike trail is planned to connect the Cherokee Canal levee via Biggs to Gridley (Butte County 2007). Other Class II bike lanes are planned to link Biggs, Gridley, Gray Lodge Wildlife Area, and Oroville Wildlife Area with other county population centers and places of interest (Butte County 2007).

Table 13-1. Butte County Park and Recreation Facilities within the Plan Area

Facility	Acres Undeveloped	Acres Developed	Total Acres
Chico Area Recreation and Park District			
Dorothy Johnson Center/Park	–	3.0	3.0
Oakway Park	–	8.0	8.0
Peterson Park	–	4.1	4.1
Rotary Park	–	0.3	0.3
Hooker Oak Park	–	35.0	35.0
Community Park	–	40.0	40.0
DeGarmo Park	16.0	20.0	36.0
Little Chico Creek	–	15.6	15.6
CARD Community Center	–	3.0	3.0
Pleasant Valley Center/Pool	–	1.1	1.1
Shapiro Pool	–	0.44	0.44
Sycamore Field	–	3.5	3.5
<i>Subtotal</i>	16.0	130.89	146.89
Durham Recreation and Park District			
Durham Community Park	–	24.0	24.0
Ravekes Park	–	0.5	0.5
Louis Edwards Park	–	3.9	3.9
Nelson Park	–	2.0	2.0
Midway Park	–	3.9	3.9
Dwight Brinson Swim Center	–		
Durham Memorial Hall	–		
<i>Subtotal</i>		34.3	34.3
Feather River Recreation and Park District			
Mitchell Park	–	15.3	15.3
River Bend Park	27.43	56	83.43
Martin Luther King Park	–	5.58	5.58
Nelson Ballfield Complex	–	29.6	29.6
Forbestown Park/Community Center	–	3.67	3.67
Palermo Park	–	5.0	5.0
Playtown USA, Playground	–		
Municipal Auditorium	–	1.16	1.16
Bedrock Park/Amphitheatre	–	3.75	3.75
Bedrock Tennis Courts	–	1.5	1.5
Bedrock Skate and Bike Park	–	0.75	0.75
Gary Nolan Sports Complex	–	14.2	14.2
Wildlife Ponds	100		100
<i>Subtotal</i>	127.43	136.51	263.94

Source: Butte County 2010, Table PUB-1.

Note: This table includes parks within incorporated and unincorporated Butte County that are owned and/or maintained by special districts. The table includes facilities that are within incorporated areas because they serve their entire community, which includes unincorporated areas.

– = none.

City of Biggs

Biggs has three small parks with a variety of amenities, such as ball courts, ball fields, picnic areas, playgrounds, restrooms, and a skatepark (City of Biggs 1998). Currently, no trails connect Biggs with levees, flood control lands, or public open spaces outside the community. The closest Class I bike trail is the Freeman Trail on the Thermalito Afterbay levee, approximately 2.5 miles away. A Class I bike trail is planned to connect Biggs to the Cherokee Canal levee to the northwest and the city of Gridley to the southeast. Class II bike trails have been planned leading from the city to the north, south, and east connecting the city to Cherokee Canal, Gridley, and Oroville Wildlife Area (Butte County 2007). Biggs does not have a boat ramp, water access, or fishing pier along the three levees closest to the city.

City of Chico

Parks, recreation, and open space resources, facilities, and services have historically been provided by both the City and the Chico Area Recreation and Park District (CARD). The City has primary responsibility for Bidwell Park (3,670 acres), the neighborhood parks, and for recreation programming and community parks. The city has 37 existing sites that are parks, open space, or recreation centers totaling 4,176 acres. (City of Chico 2011a.)

City of Gridley

Gridley has four parks and a boat ramp. Amenities at Gridley's parks include ball courts, ball fields, picnic areas, playgrounds, restrooms, and a skatepark. The boat ramp is located on the Feather River to the east of the city next to the city's water treatment plant. There is a shooting range located at the boat ramp. Currently, no trails connect Gridley with levees, flood control lands, or public open space outside the community. The closest Class I bike trail is the Freeman Trail on the Thermalito Afterbay levee, approximately 5 miles away. A Class I bike trail is planned to connect Gridley to the Cherokee Canal levee via Biggs (Butte County 2007). Other Class II bike lanes have been planned leading from the city to the north, south, east, and west connecting the city to Biggs, Live Oak, the Feather River, and Gray Lodge Waterfowl Management Area (Butte County 2007).

City of Oroville

The City of Oroville has 37 existing parks, recreational facilities, and open space within its city limits. The city parklands encompass approximately 280 acres, while the Feather River Recreation and Parks District and the California Department of Parks and Recreation parklands encompass approximately 250 acres. The city has an extensive network of existing trails for walking, hiking, jogging, and horse riding. For example, the California Hiking and Equestrian trail, comprised of segments known as the Dan Beebe Trail and the Bridle Trail, owned and maintained by the city and maintained by the California Department of Parks and Recreation, is the longest recognized trail within the city. There are less formally recognized trails and paths used by residents, including trails within the Oroville Wildlife Refuge. (Oroville 2011.)

Visual Character and Quality

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area (Federal Highway Administration 1988). *Scenic quality* can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area (U.S. Bureau of Land Management 1980). *Viewer response* is a

combination of viewer exposure and viewer sensitivity. *Viewer exposure* is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. *Viewer sensitivity* relates to the extent of the public's concern for a particular viewshed.

Visual character of an area or view is comprised of its natural and artificial landscape features, such as its geology, hydrology, flora and fauna, recreational facilities, and urban setting (development such as roads, utilities, structures, earthworks, and the results of other human activities). The visual quality of a view is evaluated based on the relative degree of vividness, intactness, and unity, as modified by viewer sensitivity, a well-established approach to visual analysis adopted by the Federal Highway Administration (FHWA) (Federal Highway Administration 1988; Jones et al. 1975). High-quality views are highly vivid and relatively intact and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity. The measure of the quality of a view is tempered by the overall sensitivity of the viewer. Viewer sensitivity or concern is based on the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and type and expectations of individuals and viewer groups.

Plan Area

The Plan Area is in western Butte County within California's Sacramento Valley (valley) (Figure 2-1). The city of Biggs and the other smaller communities of Palermo, Richvale, Nelson, and Durham are located off of SR 99, on local roadways in the Plan Area. Chico is the largest city in the Plan Area and is connected by SR 99 and SR 70 to the smaller cities of Gridley and Oroville. Overall, a mix of developed and natural landscapes characterizes the Plan Area. The overall landscape pattern of the Plan Area is characterized by sprawling development, major roadways, and the agricultural land, mountains, and waterways of the region. Viewers include residents, local business employees, roadway users, and recreational users.

Given that much of the land is in agriculture (44% of the Plan Area), an agriculture landscape is the dominant visual resource in the area. A patchwork of fields surround the suburban outskirts of cities and communities, separating developed areas. These fields offer expansive views that, when haze is at a minimum, extend over agricultural fields and recent development in the foreground to the middleground and background. Because of agriculture's dominance in the region, views of agriculture are considered to be moderately high in vividness; they are relatively intact because agriculture covers a large area of land; and, these views show a high degree of visual unity because of the large area agriculture encompasses and because the primary agricultural crop, rice, generally looks the same to all viewers and from any location.

Mountains and waterways are also a notable feature in the Plan Area. The Sutter Buttes, located outside of the Plan Area, can be seen vividly rising up from the flat valley floor in the foreground, middleground, and background. Views of Mount Vaca and the Coast Ranges to the west can often be seen, as well as background views to the Sierra Nevada foothills to the east. The Thermalito Forebay and Afterbay (approximately 2.5 miles north of Biggs) and the Sacramento Feather Rivers can also be seen in the Plan Area. The views of the mountains and rivers are moderately high in vividness because of their location against the flat valley floor, possess a high degree of visual unity, but are less intact depending on intervening atmospheric haze or vegetation.

While much of the Plan Area is still in agricultural production, there has been and continues to be an increasing conversion of agricultural land to suburban land uses. This trend is evident around the outskirts of Gridley and Oroville. These agrarian communities have grown slowly over the past

decade, which slowly changes the visual character from rural to suburban. Development in the region is typified by a growing core of residential, commercial, and some industrial land uses with agricultural fields surrounding the city outskirts. Older residential and commercial areas in the region are often distinct, having a wide vernacular of architectural styles, development layouts, and visual interest. Newer residential and commercial development, however, tends to be homogenous in nature, having similar architectural styles, building materials, plan layouts, and commercial entities, and development often lacks a distinctive character from one city to the next. Both natural and human-made waterways and bypasses help limit development by serving as physical and natural resource barriers. Generally, urban visual character and quality are moderate to moderately low in vividness because of a range in quality of the built environment, depending upon location, when compared to agricultural or natural landscapes. Views are typically much less intact due to intervening buildings, vegetation, or other physical impediments that block viewers' line of sight and exhibit a low degree of visual unity because of the different kinds of infrastructure and architectural styles that intermix within urban development.

City of Biggs

The visual character and quality of the city of Biggs is comprised of the different land uses within and surrounding the city and the area's wide variety of topography. The land uses are primarily residential and farming-supporting. The City has largely maintained the compact urban form upon its original plan. The majority of the city's residential housing was constructed post-World War II and utilized the basic lot-and-block layout of the original city parcel map. Infill continues to take place in the original urban footprint. Industrial buildings and uses that are slightly lower density are located closer to the outer edges and primarily in the southwestern portion of the city. The western edge of the city is the beginning of a large area of active, irrigated agricultural land, mainly used for rice cultivation. The topography is flat and expansive. The areas to the north and south are characterized by flat topography comprised of larger lot rural residential development and isolated agricultural and grazing areas. The areas to the east are predominantly used for tree crops; while topography is flat, the views are made up of vegetation and are interrupted by trees (City of Biggs 2011).

As described above under Plan Area, views of the natural landscape and agricultural landscape are typically moderately high in vividness, relatively intact, and show a high degree of visual unity. Generally, urban visual character and quality are moderately to moderately low in vividness, typically much less intact, and exhibit a low degree of visual unity. However, As stated in the City of Biggs Draft Community Enhancement Element (insert citation), "The urban form of the downtown area is reflective of a compact style, with buildings generally extending to the street in the front and having limited to no setbacks or open areas between adjacent buildings. The collective style of the downtown core is reflective of the age and evolution of the city's nonresidential center."

The organization of the Biggs downtown urban form results in a higher degree of visual unity.

City of Chico

Chico's natural attributes, such as agriculture, foothills, trees, and creeks have all contributed to its shape and urban form. These attributes, the various land uses (e.g., suburban, urban, agriculture), development patterns, and streets contribute to the overall visual character and quality of the city. The City places a high value on the scenic open space and fertile agricultural lands that contribute to its character. The abundance of open space, park land, stream corridors, and unique habitats all

contribute to Chico's diverse visual patterns. The city has retained its distinct small town character by preserving the urban fabric of the downtown; however, the differences between the development patterns in the newer and older areas of the city are distinct. The original grid pattern of the city streets and unique architecture in the downtown core and surrounding older neighborhoods provide a distinct contrast to the post-World War II development with arterial streets and diverse architectural styles and forms (City of Chico 2011a).

As described above under *Plan Area*, views of the natural landscape and agricultural landscape are typically moderately high in vividness, relatively intact, and show a high degree of visual unity. Generally, urban visual character and quality are moderately to moderately low in vividness, are typically much less intact, and exhibit a low degree of visual unity. However, the higher density of the urban uses in the middle of the city on the original city grid pattern of the city likely results in a higher degree of visual unity based on the grid organization of the streets and adjacent buildings.

City of Gridley

The visual character and quality of the City of Gridley is comprised mainly of its small-town character and surrounding agricultural uses. The topography is predominately flat, affording views of rural residential homes, downtown areas, SR 99, and surrounding agricultural areas, and expansive views of the Sierra Nevada and Sutter Buttes, depending on the location of the viewer (City of Gridley 2010). The most prominent regional scenic resource viewable from the city is the Sutter Buttes. The Sutter Buttes are approximately 6 miles to the southwest and are close to 1,800 feet higher in elevation than the city (City of Gridley 2009).

Surrounded by orchards and field crops, Gridley has distinct edges as its urban area meets the neighboring agricultural lands and open space. The city is organized on a grid street pattern with large tree and residences. The downtown is surrounded on the east and west by historic residential areas with a diverse set of building types and sizes and newer commercial development along SR 99. Industrial land uses are less visually prominent in the core areas of the city and are primarily located along SR 99. (City of Gridley 2010.)

As described above under *Plan Area*, views of the natural landscape and agricultural landscape are typically moderately high in vividness, relatively intact, and show a high degree of visual unity. The views of the Sutter Buttes are also highly vivid because of their location against the flat valley floor, but are less intact depending on intervening atmospheric haze or vegetation, and possess a high degree of visual unity based on their unique geologic formation. Generally, urban visual character and quality are moderate to moderately low in vividness; are typically much less intact; and exhibit a low degree of visual unity.

City of Oroville

The visual character and quality of the city of Oroville is comprised of the different land uses within and surrounding the city and the wide variety of topography of the area. The land uses are primarily wildlife and nature preserves, agricultural uses, and urban or suburban uses. Oroville has a number of scenic resources in the form of wildlife and nature preserves and prominent land formations. Oroville also has multiple prominent, identifiable land forms, including Table Mountain and the Sierra Nevada foothills. Table Mountain is a large, flat-topped mountain located north of Oroville and highlight visible from many parts of the city and surrounding area. Some parts of the city have views toward the foothills to the east. Preserves in the city are to be maintained in their form, character, and use and provide different visual character and qualities, such as highly vegetated

areas and variable topography interspersed with views of various water resources. Along the Feather River and Oroville Dam (e.g., Feather River Wildlife Preserve and Oroville Wildlife Refuge Preserve), are preserves, a nature center, and a native plant park that provide scenic vistas of the Feather River.

Along with the varied topography, vegetation, and wildlife that preserves and water resources provide, agriculture and urban and suburban uses also shape Oroville's visual character and quality. Row crops and rice fields are predominant in the mostly flat areas in the northwest portion of the city and the City's sphere of influence. There are small olive groves on the hillsides in the southeastern portion and citrus orchards in the southwestern corner. The urban and suburban uses are comprised of a variety of building types and are primarily concentrated (i.e., higher density) in downtown and along SR 99, with less concentrated development and larger lot sizes for homes and businesses away from the downtown. (City of Oroville 2009a.)

As described above under *Plan Area*, views of the natural landscape and agricultural landscape are typically moderately high in vividness, relatively intact, and show a high degree of visual unity. Views of Table Mountain and the Sierra Nevada are highly vivid because of their location frames and backdrops against the flat valley floor, but are less intact depending on intervening atmospheric haze or vegetation, and possess a high degree of visual unity based on their unique geologic formation. Generally, urban visual character and quality are moderate to moderately low in vividness, typically much less intact, and exhibit a low degree of visual unity.

Scenic Highways

Scenic highways add to the visual character and quality of a landscape or area; however, since they are addressed by a separate threshold in the impact analysis, they are discussed separately here.

There are no highways in or near the Plan Area that are designated in federal or state plans as scenic highways worthy of protection for maintaining and enhancing scenic viewsheds. SR 70 is an Eligible State Scenic Highway, but is not officially designated for protection (Scenic Byways 2013; California Department of Transportation 2013).

Figure COS-8 in General Plan 2030 identifies county-designated scenic highways. Most of the county-designated scenic highways are west of the Plan Area boundaries in the mountains. However, a small section of SR 70 north of the SR 149 intersection is located in the Plan Area (Cascade Foothill CAZ) (Butte County 2012).

The City of Biggs, Chico, City of Gridley, and the City of Oroville general plans have no locally designated scenic highways or roads (City of Oroville 2008; City of Gridley 2009; City of Chico 2010; City of Biggs 2011).

Scenic Vistas

Scenic vistas add to the visual character and quality of a landscape or area; however, because scenic vistas are addressed by a separate threshold in the analysis, they are discussed separately here.

The county does not have any designated scenic vista locations. However, the vegetation in the foothills along the eastern edge of the Plan Area and adjacent to the Plan Area (in the Cascade Foothills CAZ, and the Sierra Foothills CAZ) is primarily grasslands and chaparral. Consequently, according to General Plan 2030, the foothills provide important scenic vistas along river and creek

canyons and out across the Sacramento Valley, such as the views from the Skyway, Neal Road, and SR 70 (Butte County 2010).

The City of Biggs General Plan does not specifically designate any scenic vistas or important views within or outside the city (City of Biggs 2011).

The city of Chico does not have any designated scenic vista locations; however, the City considers views of the transition between landscapes (Sierra Nevada foothills to the east and Central Valley to the west), the agricultural landscape, the foothills and the rising elevations to the east of Chico, the major creeks, and Bidwell Park as scenic vista areas (City of Chico 2011b).

The City of Gridley considers views of the Sutter Buttes a scenic vista; the Buttes are also seen from other parts of the Plan Area (City of Gridley 2009).

The City of Oroville considers Table Mountain and views of the foothills as scenic vistas, which are seen from other areas within the Plan Area (City of Oroville 2009b).

Viewer Groups and Viewer Responses

The primary viewer groups in the Plan Area are persons living or conducting business in the Plan Area; travelers using highways and smaller local roads (including those on levee crowns); and recreational users (including boaters, beachgoers along the Sacramento and Feather Rivers, and anglers using canals, creeks, and rivers; trail users; equestrians; bicyclists; and joggers). All viewer groups have direct views of the Plan Area, depending on whether they are located in urban, suburban, or more rural areas.

Residents

Suburban and rural residents are located throughout the Plan Area. Suburban residences are mostly oriented inward toward the developments, and only residences on the outer edge of the developments have middleground and background views of the surrounding landscape. The separation and orientation of rural residences allow inhabitants to have direct views over agricultural fields to surrounding areas. Both suburban and rural residents are likely to have a high sense of ownership over their adjacent views, the inherent scenic quality of such views, and the open space surrounding them and the recreational opportunities it provides.

Residents are considered to have high sensitivity to changes in the viewshed because of their long-term exposure to such views and sense of ownership.

Businesses

Viewers from industrial, commercial, government, and educational facilities have semipermanent views from their respective facilities. Situated in different locations throughout the Plan Area, these facilities' views range from views limited by their surroundings (e.g., buildings and landscaping or forest) to sweeping views that extend out to the background. Employees and users of these facilities are likely to be occupied with their work activities and tasks at hand, and pay relatively little attention to the views during working hours.

Because of their limited viewing times, their focus on tasks at hand, this viewer group is considered to have moderate sensitivity to changes in views.

Roadway Users

Roadway users' vantages differ based on the roadway they are traveling and elevation of that roadway. The majority of views are mostly limited to the foreground by suburban, commercial, and industrial development; vegetation; and levees. Views to the middleground and background are present but are limited to areas where structures that otherwise would conceal background views from the roadway are set back. However, if the vantage is elevated, as on portions of SR 99, bridges crossing over the waterways, levee roads, and other local roadways, most views of the surrounding mountain ranges (Vaca Mountains, Coast Ranges, and Sierra Nevada), waterways (Sacramento and Feather Rivers, Sutter Bypass when flooded, etc.), and open space areas (e.g., agricultural areas, parkways) are only partially obstructed by the rooflines and mature vegetation in the Plan Area.

Travelers use roadways at varying speeds; normal highway and roadway speeds differ based on speed limits and the traveler's familiarity with the route and roadway conditions (e.g., presence/absence of rain). Single views typically are of short duration, except on straighter stretches where views last slightly longer. Viewers who frequently travel these routes generally possess moderate visual sensitivity to their surroundings. The passing landscape becomes familiar to these viewers, and their attention typically is not focused on the passing views but on the roadway, roadway signs, and surrounding traffic.

Viewers who travel local routes for their scenic quality generally possess a higher visual sensitivity to their surroundings because they are likely to respond to the natural environment with a high regard and as a holistic visual experience. Scenic stretches of roadway passing through the Plan Area offer sweeping views of the surrounding area that are of interest to motorists, especially when traveling on the bridges or levee tops or on ascending/descending climbs in the Sierra Nevada foothills that can offer views out to the surrounding landscape.

For these reasons, viewer sensitivity is moderate among most roadway travelers, although higher for those who are traveling specifically for scenic views, as described above.

Recreational Users

Recreational users view the Plan Area from parks, waterways, roadways, trails, and from levees. Recreational uses consist of boating and fishing on local waterways; hunting in the bypasses; birding; and walking, running, jogging, and bicycling along trails, levee crowns, and local roads. Users accessing waterway edges and bypasses are likely to seek out natural areas, such as vegetated areas, sand and gravel bars, and beaches, in addition to using the waterways as a resource. Those on waterways have differing views based on their location in the landscape and are accustomed to variations in the level of land uses and activities taking place in the Plan Area. The amount of vegetation present along waterways creates a softened, natural edge that is enjoyed by all recreational users. Recreational users walking, running, jogging, and bicycling along trails, levee crowns, and local roads also have differing views based on their location in the landscape and are accustomed to variations in the level of land uses and activities occurring within the Plan Area. Local recreational users also have a high sense of ownership over the waterways and corridors they use, and these areas are highly valued throughout the Plan Area.

Viewer sensitivity is high among recreational users using the Plan Area because they are more likely to highly value the natural environment, appreciate the visual experience, have a high sense of ownership, and be more sensitive to changes in views.

13.2 Environmental Consequences

This section incorporates by reference the impact determinations presented for recreation, open space, and visual resources in the Local Agencies' general plan EIRs (as described in more detail in Chapter 3, Section 3.3, *Resource Chapter Organization and NEPA/CEQA Requirements*).¹ The significance findings and mitigation measures of each of the general plan EIRs are compiled in Appendix C. The Lead Agencies have reviewed these analyses and found them to be appropriate for the purposes of this EIS/EIR.

13.2.1 Methods for Impact Analysis

The BRCP would not provide individual project approvals or entitlements for any private or public development or infrastructure projects. Accordingly, this EIS/EIR does not provide CEQA or NEPA coverage for individual covered activities and does not function as a *programmatic* or *umbrella* CEQA or NEPA document for regional development and infrastructure projects. The BRCP EIS/EIR evaluates only the adverse and beneficial environmental effects associated with the decisions of the Local Agencies, water and irrigation districts and Caltrans to approve, permit, and implement the BRCP. Accordingly, the methods for analyzing direct impacts on recreation, open space, and visual resources are tailored to evaluate the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. This EIS/EIR also incorporates the impact determinations of the Local Agencies' general plan EIRs to analyze indirect impacts on recreation, open space, and visual resources.

It is assumed that all covered activities approved by the Local Agencies would be consistent with the policies of their respective general plans and would be subject to any mitigation measures identified such that impacts would be adequately mitigated to the extent identified in the general plan EIRs. Water and irrigation district activities have not been analyzed in previous CEQA documents. These activities include: rerouting of existing canals, replacement of water delivery structures, replacement of large weirs, mowing and trimming vegetation along service roads, and removing aquatic vegetation from canals. Potential impacts on recreation, open space, and visual resources could occur primarily during construction or maintenance of these activities.

Activities within Local Jurisdictions

Recreation and Open Space

In adopting the EIRs for the local general plans, the Local Agencies—with the exception of the City of Gridley—determined that implementation of the general plan, including its policies and identified mitigation measures, would have no impact or a less-than-significant impact on recreation. The City of Gridley determined that significant and unavoidable impacts would result from the expected population increase and increased use of recreation facilities associated with that population increase. It is assumed that all activities approved by the Local Agencies would be consistent with the policies of their respective general plans and would be subject to any required mitigation measures to adequately mitigate impacts.

¹ These previous CEQA documents are available collectively for public review at the BCAG offices (2580 Sierra Sunrise Terrace, Suite 100 Chico, CA 95928-8441). Individual general plans and EIRs are also available at each of the respective land use agencies.

Visual Resources

In adopting the EIRs for the local general plans, the Local Agencies (except for the Cities of Gridley and Chico) determined that implementation of general, including its policies and identified mitigation measures, would have no impact or a less-than-significant impact on visual resources. The City of Gridley determined significant and unavoidable impacts would result from the expected changes in visual character and quality, scenic vistas, and light and glare from the conversion of agriculture or open space to urban or suburban development. In addition, the City of Chico determined there would be significant and unavoidable impacts resulting from the expected changes in visual character and quality in its planning area resulting from the conversion of agriculture or open space to urban or suburban development. It is assumed that all activities approved by the participating local jurisdictions would be consistent with the policies of their respective general plans and would be subject to any mitigation measures identified such that impacts would be adequately mitigated.

Activities outside Local Jurisdictions, Conservation Strategy Activities, and Conservation Measure Activities

Recreation and Open Space

This EIS/EIR contains a qualitative impact analysis for activities outside of the local jurisdiction of the Local Agencies. These activities include those of the water districts and irrigation districts and those that would take place as part of the proposed action's conservation strategy and conservation measures that could result in physical environmental changes. The qualitative analysis addresses beneficial and adverse impacts by discussing how implementation of the alternatives could potentially affect recreational opportunities and open space (i.e., their compatibility with biological goals and biological measureable objectives). The analysis includes a discussion of impacts on recreation and open space that may result from the removal or addition of lands for any BRCP conservation activity or covered activity. The baseline setting for recreational and open space is compared against the expected changes to the use of existing recreational facilities and the construction of new recreational opportunities under the various covered activities by alternative. A determination is made based on the general qualitative magnitude of the change if impacts on recreational resources and open space would be significant, less than significant, or would not occur.

Visual Resources

This EIS/EIR contains a qualitative impact analysis for activities outside of the local jurisdiction of the Local Agencies. These activities include those of the water districts and irrigation districts, Caltrans and BCAG transportation projects outside of City jurisdictions, and those that would take place as part of the proposed action's conservation strategy and conservation measures that could result in changes in the aesthetic setting. The baseline visual setting is compared against the expected changes to the scenic highways, scenic vistas, visual character and quality, and light and glare under the various covered activities by alternative. A determination is made based on the general qualitative magnitude of the change if impacts to visual resources would be significant, less than significant, or would not occur.

13.2.2 Significance Criteria

In accordance with Appendix G of the State CEQA Guidelines, the action alternatives would be considered to have a significant effect if they would result in any of the conditions listed below.

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.
- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

13.2.3 Impacts and Mitigation Measures

Alternative 1—No Action (No Plan Implementation)

As discussed in Chapter 2, Section 2.3.1, *Alternative 1—No Action (No Plan Implementation)*, project proponents would apply for permits on a project-by-project basis, without coordinated effort to minimize biological impacts through the Plan Area. Under Alternative 1, urban development and public infrastructure projects would continue to occur pursuant to the approved general plans of the Local Agencies and BCAG's regional plan(s). These projects include residential, commercial, and industrial development as well as construction, maintenance, and use of urban infrastructure, parks, recreational facilities, public services, and similar types of urban land uses. Other activities that would occur under Alternative 1 are construction and maintenance of public infrastructure projects outside of urban areas, including public infrastructure projects in and over streams (e.g., bridge replacements). No regional conservation strategy or conservation measures would be implemented; therefore, impacts on recreation and visual character and quality associated with the conservation strategy and conservation measures would not occur.

Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and the Cities of Biggs, Chico, and Oroville determined that the implementation of the general plans would result in no impact or less-than-significant impacts associated with increased use of existing neighborhood and regional parks or other recreational facilities (City of Oroville 2009b; Butte County 2010; City of Chico 2010; City of Biggs 2013). These Local Agencies made these determinations because (1) general plan implementation would include additional recreational facilities so there would be no deterioration of existing neighborhoods or regional parks; (2) the goals, policies, and actions of the general plans would result in maintaining and protecting existing parks; or (3) the Local Agencies already have sufficient parkland, and general plan implementation would not substantially decrease this existing parkland.

The City of Gridley determined that the approval of its general plan, and the physical activities associated with the implementation of the general plan, would result in significant and unavoidable impacts on recreational facilities. Although population growth is expected to take place in the city, general plan goals, policies, and actions require parkland standards be met that would result in a substantial increase in the use of existing parks such that substantial physical deterioration of the facility would occur or be accelerated.

The activities of water districts and irrigation districts would not increase the use of existing parks or other recreational facilities. These activities would typically be performed within the service districts of the water and irrigation districts. The service districts are located outside the boundaries of the cities and, therefore, would not result in impacts on parks or recreational facilities in the cities. The water district and irrigation district service boundaries have some overlap with the Durham Recreation and Park District and the Richvale Recreation and Park District within the Plan Area. Since the specific location of the activities is unknown, it would be speculative to identify which parks or recreational facilities in those two recreation and park districts may be affected. However, given the types of activities that the water districts and irrigation districts would perform under Alternative 1, it is anticipated they would not increase the use of existing neighborhood and regional parks or other recreational facilities. The districts' activities primarily involve providing irrigation water for agriculture; these activities would not increase population in the service district area, and increasing population is one of the main mechanisms for an increased use of existing neighborhood or regional parks.

Furthermore, if construction and maintenance associated with water district and irrigation district activities occurred within close proximity to an existing park or recreational facility, these activities would occur infrequently (e.g., once every 5 years or once every 4 to 5 years). They would also tend to occur during the winter (e.g., September–December or late January–early April) when there is generally low use of outdoor parks and recreation facilities. Thus, these covered activities would only present a temporary effect on the existing park or recreational facility such that patrons would likely continue to use the park or facility, or patron use would be low because of the season (e.g., winter). Therefore, it is not anticipated the activities associated with water or irrigation districts would result in the increased use of existing recreational facilities.

NEPA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in a substantial increase in the use of existing recreational facilities because of population growth, thereby leading to deterioration of recreational facilities. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in a substantial increase in the use of existing recreational facilities because of population growth, thereby leading to deterioration of recreational facilities. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less than significant levels. Consequently, the impact would be significant and unavoidable.

Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County of Butte and Cities of Biggs, Chico, and Oroville concluded that although site-specific impacts could not be determined at the general plan level, their general plan goals, policies, and

actions would ensure that significant impacts associated with construction or expansion of recreational facilities as a result of implementation of the general plans would be less than significant (City of Oroville 2009b; City of Chico 2010; Butte County 2010; City of Biggs 2013). However, the City of Gridley determined that there would be substantial adverse impacts related to parks and recreational facilities, as discussed above in Impact REC-1.

The water districts' and irrigation districts' activities would include the construction and maintenance of piping, water delivery structures, canals, or the trimming of vegetation along service roads, and would not include or require the construction or expansion of recreational facilities.

NEPA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in a substantial increase in the use of existing recreational facilities because of population growth, thereby resulting in the potential need for new or expanded facilities. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in a substantial increase in the use of existing recreational facilities because of population growth, thereby resulting in the potential need for new or expanded facilities. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact REC-3: Have a substantial adverse effect on a scenic vista (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County of Butte and Cities of Biggs, Chico, and Oroville determined that the implementation of their general plans—and thus, activities that would occur under their general plans—would result in no impact or less-than-significant impacts on a scenic vista (City of Oroville 2009b; City of Chico 2011b; Butte County 2010; City of Biggs 2013). The goals, objectives, and actions of the general plans would not result in significant impacts on scenic vistas and would seek to maintain designated scenic views or vistas (e.g., Feather River and Table Mountain), or continued implementation of the Municipal Code in the various jurisdictions would result in no substantial adverse effect on scenic vistas.

However, the City of Gridley determined that the approval of its general plan, and the physical activities associated with the implementation of the general plan, would result in significant and unavoidable impacts on scenic vistas. Views of the Sutter Buttes, considered a scenic vista in Gridley, could be partially or totally blocked by future urban land uses in Gridley. Converting agricultural lands to urban lands would also permanently alter foreground and background views of the Sutter Buttes for vehicles traveling along SR 99.

The water districts' and irrigation districts' activities would require construction that could result in temporary alterations to the baseline visual setting. However, the service districts are located in parts of the county where the visual setting is highly dominated by agriculture and typically oriented away from viewers that would be highly sensitive to changes in the visual setting or scenic vistas (e.g., residents or recreationists). Furthermore, the majority of these activities are actually performed to maintain the baseline conditions (e.g., remove aquatic vegetation from canals to maintain an open irrigation channel), and many of these activities are already part of the baseline

visual setting (i.e., water districts and irrigation districts are already conducting these activities to maintain their canals and infrastructure); thus, these activities would not affect a scenic vista.

Some transportation projects, such as those capacity-enhancing projects on SR 99, would result in short term changes to the visual character and quality of the Plan Area during construction. Activities such as grading operations requiring the movement of heavy equipment on roadways during limited construction periods would occur. The construction areas would generally be small compared to the larger visual setting of the county, and the construction periods would be of limited duration. It is unlikely these construction impacts would block or alter scenic resources of the Plan Area for extended periods of time. Furthermore, viewer sensitivity is moderate among most roadway travelers, and they are not likely to experience substantial adverse effects on their visual setting as a result of construction equipment or staging areas. Once the roadways have been upgraded or modified, they would generally be flat and would not result in the blocking or altering of a scenic resource. Therefore, it is anticipated that Caltrans and other BCAG transportation projects would not substantially and adversely affect scenic resources of the Plan Area.

NEPA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in a substantial adverse effect on scenic vistas as a result of blocking views of the Sutter Buttes. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in a substantial adverse effect on scenic vistas as a result of blocking views of the Sutter Buttes. Implementation of Gridley's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

Impact REC-4: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway (NEPA: less than significant; CEQA: less than significant)

There are no state scenic highways designated in the Plan Area. SR 70 is eligible for designation but has not been designated. Therefore, substantial damage to scenic resources along a state scenic highway would not occur. Furthermore, the Cities of Oroville, Chico, Biggs, and Gridley do not have locally designated scenic highways. The County's General Plan 2030 and Zoning Ordinance locally designate several scenic highways within the Plan Area as described in Section 13.1.2, *Environmental Setting*. And the County's General Plan 2030 describes scenic highway overlay zones (Figure COS-9 of County General Plan 2030). However, the County general plan EIR (2010) concludes that the general plan's goals, policies, and actions (e.g., Goal COS-18) would avoid significant impacts related to the locally designated scenic highways.

Caltrans and BCAG would undertake several capacity enhancing improvements on roadways in the Plan Area and other roadway improvements under Alternative 1. Specifically, the County would upgrade the rural intersection of Pentz Road at Durham-Pentz Road. Pentz road is part of a scenic highway overlay zone as identified on Figure COS-09 of the County General Plan 2030. The improvements would include installation of traffic signals or widening of the roadway to accommodate the creation and/or extension of intersection turn lanes and through lanes, as well as bicycle and pedestrian facilities (e.g., bike lanes, crosswalks, islands). The improvements may require a 3-acre construction footprint, including a staging area. However, during construction, any

effects on scenic resources in the area would be temporary, and the upgrade of a rural intersection would, overall, not substantially damage scenic resources because it would not substantially change the visual connectivity of the intersection with the surrounding environment. Furthermore, as identified in the County general plan EIR (2010) the general plan's goals, policies, and actions (e.g., Goal COS-18) would avoid significant impacts related to the locally designated scenic highways. No other Caltrans or County roadway improvement projects would occur on locally designated scenic highways or highway overlay zones.

Activities associated with the water districts or irrigation districts are not anticipated to take place along the locally designated scenic highways. These activities would take place within the service areas of the water districts or irrigation districts, and there are no locally designated scenic highways in these areas (Figure COS-8 of County General Plan 2030).

NEPA Determination: Alternative 1 would not result in substantial damage to scenic resources along a scenic highway because there are no officially designated scenic highways in the Plan Area, and implementation of the Local Agency general plans would avoid impacts on locally designated scenic highways. Therefore, the impact would be less than significant. No mitigation is required.

CEQA Determination: Alternative 1 would not result in substantial damage to scenic resources along a scenic highway because there are no officially designated scenic highways in the Plan Area and implementation of the Local Agency general plans would avoid impacts on locally designated scenic highways. Therefore, impacts would be less than significant. No mitigation is required.

Impact REC-5: Substantially degrade the existing visual character or quality of the site and its surroundings (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and Cities of Biggs and Oroville determined that the implementation of their general plans—and thus, activities that would occur under their general plans—would not degrade the existing visual character or quality of the plan areas and their surroundings (City of Oroville 2009b; Butte County 2010; City of Biggs 2013). The goals, objectives, and actions of the general plans would not result in a substantial degradation to the existing visual character or quality of the planning areas (City of Oroville 2009b; Butte County 2010).

However, the Cities of Chico and Gridley determined that the expected changes in visual character and quality in the planning areas resulting from the conversion of agriculture, open space, or vacant or undeveloped land to urban or suburban development as the plan areas are built out would have a significant impact on existing visual character and quality. The City of Gridley determined that the general plan's purpose is to provide a framework for governing the development of the very urban land uses that would convert existing agricultural land in the City and its planning area. The City of Chico concluded that the introduction of urban uses into designated special planning areas, which are currently vacant undeveloped land, would result in changes to the visual resources those lands currently provide. (City of Gridley 2009; City of Chico 2011b.)

Water districts' and irrigation districts' activities would not substantially degrade the existing visual character or quality of the Plan Area. As discussed in REC-3, the water districts' and irrigation districts' service areas are located in parts of the county where the visual setting is highly dominated by agriculture and typically oriented away from viewers that would be highly sensitive to changes in the visual setting or scenic vistas (e.g., residents or recreationists). Furthermore, many of the water districts' and irrigation districts' activities are already part of the baseline visual setting (i.e., water

districts and irrigation districts are already conducting these activities to maintain their canals and infrastructure).

Some transportation projects, such as those capacity-enhancing projects on SR 99, would result in short-term changes to the visual character and quality of the Plan Area during construction as described in REC-3. However, construction areas would generally be small compared to the larger visual setting of the county, and construction periods would be of limited duration. Furthermore, viewer sensitivity is moderate among most roadway travelers, and they are not likely to experience substantial adverse effects on their visual setting as a result of construction equipment or staging areas. Once the roadways have been upgraded or modified, they would generally be flat, with potentially new signage or intersection lights, and would not result in the substantial degradation of the visual quality or character of the Plan Area as they would complement the existing roadway infrastructure. Therefore, it is anticipated that Caltrans and other BCAG transportation projects would not substantially degrade the existing visual character or quality of the Plan Area.

NEPA Determination: Under Alternative 1, implementation of the City of Gridley's and the City of Chico's general plans would result in a substantial degradation of the existing visual character and quality of their jurisdictions, primarily as a result of the conversion of agricultural and open space lands to urban lands. Implementation of Gridley's and Chico's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Under Alternative 1, implementation of the City of Gridley's and the City of Chico's general plans would result in a substantial degradation of the existing visual character and quality of their jurisdictions primarily as the result of the conversion of agricultural land and open space to urban lands. Implementation of both Gridley's and Chico's general plan policies or mitigation measures would not reduce these effects to less-than-significant levels (City of Gridley 2009; City of Chico 2011b). Consequently, the impact would be significant and unavoidable.

Impact REC-6: Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The County and Cities of Biggs, Chico, and Oroville determined that the implementation of the general plans—and, thus, activities that would occur under the general plans—would result in no impact or less-than-significant impacts on creating new sources of substantial light or glare. The goals, policies, and actions of the general plans, as well as the municipalities codes that restrict light and glare of new development, would prevent new sources of substantial light and glare. (City of Oroville 2009b; City of Chico 2010; Butte County 2010; City of Biggs 2013.)

However, the City of Gridley determined that the approval of its general plan, and the physical activities associated with the implementation of the general plan, would result in significant and unavoidable impacts by increasing nighttime lighting and daytime glare. New urban development would increase the amount of nighttime light and daytime glare and would introduce a new source of nighttime lighting in existing rural areas (City of Gridley 2009).

The water districts' and irrigation districts' service areas may result in some new sources of light and glare associated with replacement of larger water delivery structures (e.g., large weirs). During this replacement, new security or safety lighting could be incorporated, but it is anticipated that

effects would not be adverse because the districts would install only the minimum amount of lighting necessary to provide safety and security.

NEPA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in substantial new sources of light and glare due to the increase in urban land uses. Implementation of the City's general plan policies or mitigation measures would not reduce these effects to a less-than-significant level. Consequently, the impact would be significant and unavoidable.

CEQA Determination: Under Alternative 1, implementation of the City of Gridley's general plan would result in substantial new sources of light and glare due to the increase of urban land uses. Implementation of the City's general plan policies or mitigation measures would not reduce these effects to a less-than-significant level (City of Gridley 2009). Consequently, the impact would be significant and unavoidable.

Alternative 2—Proposed Action

As discussed in Section 13.2.1, *Methods for Impact Analysis*, covered activities within the jurisdiction of the Local Agencies have been analyzed in previous CEQA documents that are incorporated by reference. These types of covered activities are incorporated into Alternative 2 and are described in Chapter 2, Section 2.3.2, *Alternative 2—Proposed Butte Regional Conservation Plan (Permit Issuance/Plan Implementation)*. These covered activities include development or maintenance of residential, commercial, public, or industrial facilities; recreational facilities; transportation facilities; pipeline facilities; utility service and waste management facilities; and flood control and stormwater management facilities. The following analysis of Alternative 2 references the Alternative 1 analysis because impacts for these BRCP covered activities would be the same.

Under Alternative 2, covered activities would include the existing, planned, and proposed land uses over which the Permit Applicants have land use authority; state and local transportation projects; maintenance of water delivery systems (e.g., WCWD canals and similar delivery systems); habitat restoration, enhancement, and management actions (conservation measures); and adaptive management and monitoring activities. Most covered activities would require individual permits and approvals pursuant to the Local Agencies' general plans and land use regulations or the requirements of the implementing agency (such as Caltrans and irrigation districts) and would undergo subsequent project-level CEQA review and relevant NEPA review for construction and operation-related impacts; some covered activities, however, may be exempted from environmental review requirements due to project characteristics including small projects or infill projects.

The conservation strategy and conservation measures have not been analyzed in previous CEQA documents and include habitat management and enhancement, habitat restoration, general maintenance, avoidance and minimization measures, and species population enhancement. Not all conservation measures would result in physical changes to the environment, thus the following conservation measures have the potential, either during construction or maintenance, to impact recreational and/or visual resources: CM1, CM4–CM14. The remaining conservation measures are not anticipated to result in physical changes to the environment and thus would have very low potential or no potential to affect recreation, open space, or visual resources; therefore, they are not discussed below. Furthermore, the BRCP specifically allows recreational uses on BRCP conservation lands where compatible with the conservation goals for those lands.

Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts of covered activities within the jurisdictions of the Local Agencies and water and irrigation districts, on existing parks or other recreational facilities and within the water districts' and irrigation districts' service areas would be the same as those described for Alternative 1 under Impact REC-1.

The conservation strategy and conservation measures would not increase the use of existing parks or other recreational facilities. These conservation activities would not result in an increase in population in the Plan Area, and population increase is the primary mechanism for increased use of existing neighborhood and regional parks or other recreational facilities.

The conservation, preservation, and restoration of large, contiguous patches of oak woodland and savanna (with a total protection target of approximately 20,000 acres within the Sierra Foothills and Cascade Foothills CAZs) are anticipated to support mule deer, which are enjoyed by wildlife viewers. The conservation strategy would protect CDFW-designated crucial winter range, the most important habitat for this species. Although CM5 (along with CM2 and CM6, which do not include physical activities) may prohibit access and recreational activities (e.g., rock climbing, hang gliding) in important nesting areas to prevent disturbance of nesting peregrine falcons, overall, it is anticipated the conservation strategy would actually increase the recreational opportunities for the public in the Plan Area.

NEPA Determination: Under Alternative 2, the conservation strategy is anticipated to increase the recreational opportunities for the public in the Plan Area. However, as identified for Alternative 1, implementation of the City of Gridley's general plan would result in unavoidable impacts on parks or other recreational facilities. Gridley would be responsible for implementing its own general plan goals, policies, and actions; however, implementation would not reduce impacts to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

CEQA Determination: Under Alternative 2, the conservation strategy is anticipated to increase the recreational opportunities for the public in the Plan Area. However, as identified for Alternative 1, implementation of the City of Gridley's general plan would have a significant impact on parks and other recreational facilities. Gridley would be responsible for implementing its own general plan goals, policies, and actions; however, implementation would not reduce impacts to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts of covered activities within the jurisdictions of the Local Agencies and water districts and irrigation districts related to the environmental effects of construction or expansion of recreational facilities would be the same as those described for Alternative 1 under Impact REC-2.

The conservation strategy and conservation measures would not include the construction of specific recreational facilities that would have an adverse physical effect on the environment.

NEPA Determination: Under Alternative 2, the conservation strategy would not result in effects related to the environmental effects of construction or expansion of recreational facilities; however,

implementation of the City of Gridley's general plan would result in unavoidable impacts in this area. Gridley would be responsible for implementing its own general plan goals, policies, and actions; however, implementation would not reduce impacts to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

CEQA Determination: Under Alternative 2, the conservation strategy would not result in effects related to the environmental effects of construction or expansion of recreational facilities; however, implementation of the City of Gridley's general plan would result in unavoidable impacts in this area. Gridley would be responsible for implementing its own general plan goals, policies, and actions; however, implementation would not reduce impacts to a less-than-significant level. Therefore, this impact would be significant and unavoidable.

Impact REC-3: Have a substantial adverse effect on a scenic vista (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts of covered activities within the jurisdictions of the Local Agencies and water districts and irrigation district on scenic vistas would be the same as those described for Alternative 1 under Impact REC-3.

The conservation strategy and conservation measures could have a beneficial or negative effect on scenic vistas depending on the location of the activities. Conservation of natural and agricultural lands will be beneficial in maintaining open vistas and protecting views of open space and farmland from urban or other types of development. Natural areas are rarer scenic features in the Plan Area, and restoration of natural vegetation would increase visual diversity. In general, restored habitat would create visual interest and would generally not block background views. Restoration actions could also result in the creation of new scenic vistas, perhaps through the removal of existing agricultural tree rows and the establishment of vista points at specific locations or viewing opportunity areas along newly created recreational trails. However, at some sites, the restoration of agricultural lands to riparian forest could block long-distance vistas from scenic vista areas. For example, riparian forest plantings installed along a river or creek segment where roadway travelers currently have open vistas of the waterway would mature and result in more restricted views of the river and vistas beyond.

After completion of construction activities necessary for restoration, areas surrounding the restored/enhanced area may be denuded of vegetation or appear to be so from a distance because immature planted vegetation would be similar in appearance to tilled or newly planted agricultural fields. The sites would be in a transitional state, and over a period of 1 to several years, plant species would mature, and vegetation would recolonize the sites. The restored sites would be scattered throughout the Plan Area and CAZs, so the sites would not create a visual imposition on the landscape or be perceived as a centralized, large-scale visual change. In addition, restored/enhanced sites would increase the amount of native vegetative communities that attract wildlife, thus helping to improve the visual quality and diversity of the restored areas. Other beneficial effects would result when flat agricultural lands and row crops are replaced by restored riparian vegetation. The visual characteristics of these restored/enhanced landscapes would be similar to other natural areas in the Plan Area and would increase the Plan Area's overall amount of natural land, which is less extensive than the widespread areas of agricultural development. The BRCP would have an overall beneficial effect related to the enhancement and creation of scenic vistas in the Plan Area. Therefore, it is anticipated that the conservation strategy and conservation measures would not have a substantial effect on scenic vistas.

NEPA Determination: Under Alternative 2, the conservation strategy would not affect scenic vistas and views and in some cases may enhance existing views. However, implementation of the City of Gridley's general plan would result in the conversion of agricultural land to urban uses and reduce the visibility of the Sutter Buttes, thereby substantially affecting scenic vistas or views. Gridley would be responsible for implementing its own general plan goals, policies, and actions; however, implementation would not reduce impacts to a less-than-significant level. Therefore, impacts would be significant and unavoidable.

CEQA Determination: Under Alternative 2, the conservation strategy would not affect scenic vistas and views and in some cases may enhance existing views. However, implementation of the City of Gridley's general plan would result in the conversion of agricultural land to urban uses and reduce the visibility of the Sutter Buttes, thereby substantially affecting scenic vistas or views. Gridley would be responsible for implementing its own general plan goals, policies, and actions or mitigation; however, implementation would not reduce impacts to a less-than-significant level. Therefore, impacts would be significant and unavoidable.

Impact REC-4: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway (NEPA: less than significant; CEQA: less than significant)

The impacts of covered activities within the jurisdictions of the Local Agencies, water districts and irrigation districts, and Caltrans and County transportation project areas on scenic vistas would be the same as those described for Alternative 1 under Impact REC-4.

There is a very low probability that conservation measures would take place along the very short length (i.e., less than 10 miles) of SR 70 (a locally scenic highway) that is within the Plan Area. However, if conservation measure activities were to take place along this short length of road, they would likely be CM4 or CM5, which would restore riparian habitat and other natural habitat in the Cascade Foothills CAZ. These types of activities would have a beneficial effect on the scenic resources seen by roadway travelers because they would provide visual interest and diversity.

NEPA Determination: Under Alternative 2, the conservation strategy and measures would not affect scenic resources along a very short segment of SR 70 because of the low probability activities would occur in this area. In addition, the County general plan EIR determined that implementation of the general plan's goals, policies, and actions would avoid significant impacts on scenic highways, and local jurisdictions lack designated scenic highways. Therefore, the impact would be less than significant. No mitigation is required.

CEQA Determination: Under Alternative 2, the conservation strategy and measures would not affect scenic resources along a very short segment of SR 70 because of the low probability activities would occur in this area. In addition, the County general plan EIR determined that implementation of the general plan's goals, policies, and actions would avoid significant impacts on scenic highways, and local jurisdictions lack designated scenic highways. Therefore, the impact would be less than significant. No mitigation is required.

Impact REC-5: Substantially degrade the existing visual character or quality of the site and its surroundings (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts of covered activities within the jurisdictions of the Local Agencies on existing visual character or quality would be the same as those described for Alternative 1 under Impact REC-5.

The conservation strategy and conservation measures would not substantially degrade the existing visual character or quality of the Plan Area. CM1, CM4–CM14 would establish a conservation land system and restore certain acreages of natural communities and habitats activities for covered species. It is unknown the location of site-specific conservation strategy and conservation measure activities and the potential presence of sensitive viewers. However, activities associated with the implementation of restoration and habitat enhancement would take place over 50 years, often during a relatively short window each year between biologically important seasons (e.g., migration or nesting) so as to minimize the effects on species. The overall intensity and duration of each action would vary based on the individual project, but would generally be short to fit within the short window each year. Implementation of the conservation strategy and conservation measures could introduce heavy equipment and associated vehicles, including dozers, graders, scrapers, and trucks, into the viewshed of all viewer groups in the vicinity. Construction may include increasing connectivity between marshes and waterways, grading, and planting. Currently, it is not uncommon for heavy equipment to be seen, intermittently, for existing levee maintenance, agricultural purposes, dredging operations, site-specific construction, and managing and restoring habitat within the Plan Area. Therefore, it is not anticipated that construction equipment and activities for generally short durations over 50 years would result in a substantial degradation of the existing visual character or quality of the Plan Area.

The conversion of agricultural lands to natural communities as a result of implementing the conservation measures could alter the visual character or quality of the Plan Area because the dominant visual feature and resource in the Plan Area is agriculture. Approximately 4,000 acres of agricultural lands in the Plan Area may be affected by conversion to restored natural communities (Butte Regional Conservation Plan 2012: Figure 4-20). The specific conversion sites are unknown, but the conversion would take place over the 50-year permit period and be within the approximately 142,000 acres of agricultural lands in the Plan Area. This conversion represents less than 3% of the agricultural land within the Plan Area. Once the land is converted to natural communities, it is anticipated that there would be beneficial effects where flat agricultural lands and row crops have been replaced by restored riparian vegetation or other vegetation, such as wetlands or grasslands, because natural areas are rarer scenic features in the Plan Area, and such a change would increase visual diversity. The BRCP would have an overall beneficial effect related to the enhancement and creation of scenic vistas in the Plan Area.

NEPA Determination: Under Alternative 2, the conservation strategy would benefit the existing visual character of the Plan area, and not substantially degrade the existing visual character and quality of agricultural lands and natural lands. However, as identified for Alternative 1, implementation of the City of Chico's and City of Gridley's general plans would result in substantial degradation of the existing visual character and quality of the areas within their local jurisdictions primarily due to more urban land uses. Both Gridley and Chico determined there is no feasible mitigation available to reduce this significant impact to a less-than-significant level (City of Gridley 2009; City of Chico 2011b). Therefore, this impact would be significant and unavoidable.

CEQA Determination: Under Alternative 2 the conservation strategy would benefit the existing visual character of the Plan area, and not substantially degrade the existing visual character and quality of agricultural lands and natural lands. However, as identified for Alternative 1, implementation of the City of Chico's and City of Gridley's general plans would result in degradation of the existing visual character and quality of the areas within their local jurisdictions primarily due to more urban land uses. Both Gridley and Chico determined there is no feasible mitigation available

to reduce this significant impact to a less-than-significant level (City of Gridley 2009; City of Chico 2011b). Therefore, this impact would be significant and unavoidable.

Impact REC-6: Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts of covered activities within the jurisdictions of the Local Agencies on daytime or nighttime views would be the same as those described for Alternative 1 under Impact REC-6.

The intent of the conservation strategy and conservation measures would be to establish native vegetation in the various CAZs. Given the nature of the conservation measures (restoration and management of habitat and species), it is anticipated that there would be very few new sources of permanent lighting during operation and that these sources would not result in a substantial increase in light or glare. Restored areas would largely be natural habitat areas. At this time, it is not known where (if any) new lighting sources might be proposed; however, it is anticipated that there would be a very limited number of such areas and that the lighting would be reduced to the minimum necessary to provide safety and security as required by the County Zoning Ordinance and that effects would not be adverse.

NEPA Determination: Under Alternative 2, the conservation strategy would not result in a substantial increase of light and glare. However, as identified for Alternative 1, substantial new sources of light or glare would be introduced in the Plan Area as a result of implementation of Gridley's general plan. Gridley determined there is no feasible mitigation available to reduce this significant impact to a less-than-significant level beyond the policies and programs of the general plan, which would fully preserve existing nighttime views while at the same time allow urban development (City of Gridley 2009). Therefore, this impact would be significant and unavoidable.

CEQA Determination: Under Alternative 2 the conservation strategy would not result in a substantial increase of light and glare. However, as identified for Alternative 1, substantial new sources light or glare would be introduced in the Plan Area as a result of implementation of Gridley's general plan. Gridley determined there is no feasible mitigation available to reduce this significant impact to a less-than-significant level beyond the policies and programs of the general plan, which would fully preserve existing nighttime views while at the same time allow urban development (City of Gridley 2009). Therefore, this impact would be significant and unavoidable.

Alternative 3—Reduced Development/Reduced Fill

Alternative 3 is similar to Alternative 2 except that it uses the various general plan EIR reduced development alternatives as described in Chapter 2, *Proposed Action and Alternatives*, to create a single reduced development footprint. Covered activities under this alternative would be similar to those described in the BRCP but would be limited to the reduced development footprint for a reduced permit term of 30 years. The reduced footprint and reduced land conservation would result in fewer built structures and less ground disturbance.

It is anticipated that under Alternative 3, fewer acres of natural communities would be conserved because reduced development would provide reduced funding for the conservation strategy. However, it is anticipated that the conservation measures would be the same because the reduction of fill would be achieved through the reduced development footprint of the Local Agencies rather than through modification of conservation measures. Consequently, the impacts related to

implementation of the conservation strategy and conservation measures would be the same as under Alternative 2.

Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Under this alternative, a moderate reduction in new development and consequent increased demand for recreational facilities would occur. But in general, effects are not expected to substantially differ from those identified in Impact REC-1 for Alternative 2.

The impacts associated with the conservation strategy and conservation measures would be similar to, but of lower intensity than, those described for Alternative 2 under Impact REC-1. It is anticipated that fewer natural communities would be conserved as a result of there being less development to fund the conservation strategy. The natural communities that would be conserved and restored would be greater than those that currently exist under baseline conditions. Therefore, it is anticipated that the conservation strategy would actually increase the recreational opportunities for the public in the Plan Area.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

an EIR. cts of covered activities within the jurisdictions of the Local Agencies and water districts and and irrigation districts related to the environmental effects of construction or expansion of recreational facilities would be similar to those described for Alternative 2 under Impact REC-2.

The conservation strategy and conservation measures would not include the construction of specific recreational facilities that would have an adverse physical effect on the environment.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-3: Have a substantial adverse effect on a scenic vista (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Generally, under Alternative 3, there would be a greater intensity of urban development within the county's and cities' urbanized areas as compared to Alternative 2. Thus, this alternative is generally anticipated to reduce the amount of land converted to urban uses county-wide, helping to retain the small town, rural character of the county and cities over a larger area of the county and maintain more undeveloped scenic areas. However, implementation of the City of Gridley's general plan would result in a substantial conversion of agricultural land and open space to urban uses and the

potential reduction of the visibility of the Sutter Buttes, and thus would adversely and substantially affect scenic vistas.

The impacts associated with the conservation strategy and conservation measures would be similar, but fewer, than those described for Alternative 2 under Impact REC-3. It is anticipated that fewer natural communities would be conserved as a result of there being less development to fund the conservation strategy. Overall, even though fewer acres of natural communities would be restored/enhanced, the acres that are restored/enhanced would increase the amount of native vegetative communities that attract wildlife, thus helping to improve the visual quality and diversity of the restored areas. The visual characteristics of these restored/enhanced landscapes would be similar to other natural areas in the Plan Area and would increase the Plan Area's overall amount of natural land, which is less extensive than the widespread areas of agricultural development. In this sense, the BRCP would have an overall beneficial effect related to the enhancement and creation of scenic vistas in the Plan Area. Therefore, it is anticipated that the conservation strategy and conservation measures would not have a substantial effect on scenic vistas. This impact would be less than significant.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-4: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway (NEPA: less than significant; CEQA: less than significant)

The impacts of covered activities within the jurisdictions of the Local Agencies, water districts and irrigation districts, and Caltrans and County roadway project areas on scenic vistas would be the same as those described for Alternative 2 under Impact REC-4.

The impacts associated with the conservation strategy and conservation measures would be similar, but fewer, than those described for Alternative 2 under Impact REC-4. It is anticipated that fewer acres of natural communities would be conserved as a result of there being less development to fund the conservation strategy. There is a low probability that the conservation strategy and measures would be implemented along SR 70, and if they were implemented, there would be potential beneficial effects on scenic resources seen by roadway travelers. Therefore, impacts would be less than significant.

NEPA Determination: The impact determination would be the same as Alternative 2; impacts would be less than significant. No mitigation is required.

CEQA Determination: The impact determination would be the same as Alternative 2; impacts would be less than significant. No mitigation is required.

Impact REC-5: Substantially degrade the existing visual character or quality of the site and its surroundings (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts of covered activities within the jurisdictions of the Local Agencies and water districts and irrigation districts on existing visual character or quality would be the same as those described for Alternative 2 under Impact REC-5.

The impacts associated with the conservation strategy and conservation measures would be similar, but fewer, than those described for Alternative 2 under impact REC-5. It is anticipated that fewer acres of natural communities would be conserved as a result of there being less development to fund the conservation strategy. As a result, it is anticipated that fewer agricultural acres would be converted to restored natural communities; therefore, it is likely that less than 3% of the existing agricultural acreage in the Plan Area would be converted. A more limited change in the rural visual character and quality of the Plan Area would take place. The visual characteristics of these restored landscapes would be similar to other natural areas in the Plan Area and would increase the Plan Area's overall amount of natural land, which is less extensive than the widespread agricultural development. In this sense, the BRCP would have an overall beneficial effect related to the enhancement and creation of visual character and quality in the Plan Area.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-6: Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts of covered activities within the jurisdictions of the Local Agencies on daytime or nighttime views would be the same as those described for Alternative 2 under Impact REC-6.

The impacts associated with the conservation strategy and conservation measures would be similar, but fewer, than those described for Alternative 2 under Impact REC-6. It is anticipated that there would be fewer acres of natural communities conserved as a result of there being less development to fund the conservation strategy. Given the nature of the conservation measures (restoration and management of habitat and species), it is anticipated that there would be very few new sources of permanent lighting during operation and that these sources would not result in a substantial increase in light or glare. Restored areas would largely be natural habitat areas. Therefore, any new lighting or glare would be very limited.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Alternative 4—Greater Conservation

Alternative 4 would be similar to Alternative 2 except that under Alternative 4, the conservation strategy would include the conservation of an additional 9,850 acres of grassland and 35,310 acres of riceland. It would include the same conservation measures as Alternative 2, and all other acreage protection targets for natural communities/land types would remain the same as described for Alternative 2. Therefore, impact mechanisms for recreation, open space, and visual resources would be similar to those described for Alternative 2.

Impact REC-1: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts associated with the conservation strategy and conservation measures would be similar to those described for Alternative 2. Although grassland and rice would not necessarily create additional public use recreational or open space opportunities, they would not prevent some of the other natural community types (e.g., managed wetlands) from occurring. Overall, it is anticipated that the conservation strategy could increase the recreational opportunities for the public in the Plan Area because there would be increased acreage that could be used for recreational opportunities.

NEPA Determination: The impact determination would be the same as Alternative 2; impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts associated with the conservation strategy and conservation measures would be similar to those described for Alternative 2 under Impact REC-2.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-3: Have a substantial adverse effect on a scenic vista (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts associated with the conservation strategy and conservation measures would be similar, but fewer, than those described for Alternative 2 under Impact REC-3. While the visual setting under Alternative 4 might favor more flat topographic lands associated with rice and grasslands, this would not be a substantial change from the existing visual setting of the Plan Area, which is primarily agricultural land (44%), generally located to the west of SR 99. Therefore, it is not anticipated to have a substantial effect on existing scenic resources. Furthermore, any restoration/enhancement of other natural communities or land types (e.g., riparian, wetland, Oak woodlands) would result in landscapes similar to other areas of the Plan Area that are in a natural state and less extensive than the widespread areas of agricultural development. This would help to improve the visual quality and diversity of the setting and enhance effects on scenic vistas.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-4: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway (NEPA: less than significant; CEQA: less than significant)

The impacts associated with the conservation strategy and conservation measures would be similar to those described for Alternative 2 under Impact REC-4. There is a low probability that the conservation strategy and measures would be implemented along SR 70, and if they were implemented, there would be potential beneficial effects on scenic resources seen by roadway travelers.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be less than significant. No mitigation is required.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be less than significant. No mitigation is required.

Impact REC-5: Substantially degrade the existing visual character or quality of the site and its surroundings (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts associated with the conservation strategy and conservation measures would be similar to those described for Alternative 2 under Impact REC-5. As discussed for Alternative 4 under REC-3, this alternative might favor more flat topographic lands associated with rice and grasslands. This would not be a substantial change from the existing visual character and quality of the Plan Area, which is primarily agricultural land (44%), generally located to the west of SR 99. Therefore, it is not anticipated to have a substantial effect on existing visual character and quality because it would continue to support flat land uses that are rural, open, and agricultural in nature. Furthermore, any restoration/enhancement of other natural communities or land types (e.g., riparian, wetland, Oak woodlands) would result in landscapes similar to other areas of the Plan Area that are in a natural state and less extensive than the widespread areas agricultural development. Therefore, this would help to improve the visual quality and diversity of the setting and enhance effects on the visual character and quality of the rural, open space, and agricultural nature of the setting. Impacts would be less than significant.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact REC-6: Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts associated with the conservation strategy and conservation measures would be similar to those identified for Alternative 2 under Impact REC-6. An increase in rice acreage or grassland acreage would not result in any new permanent sources of light or glare. These lands are typically open and in natural settings and do not have permanent light fixtures. Nighttime harvest of rice can take place and currently does take place within the Plan Area; however, this is temporary and only during harvest season and takes place within areas surrounded by other rice fields and agricultural lands. An increase in the acreage of rice is not anticipated to change these conditions substantially.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

13.2.4 Cumulative Analysis

Methods and Approach

The cumulative analysis for recreation, open space, and visual resources is a qualitative evaluation using the past, present, and reasonably foreseeable future projects listed in Chapter 3, Section 3.3.2, under *Cumulative Impacts*. This analysis considered development projects, including roadway projects, water supply development projects, and park acquisition and management projects; the general plan EIR impact determinations for cumulative impacts, where applicable; and the impact determinations identified above for the various alternatives.

This analysis determines whether the covered activities not analyzed in previous environmental documents would result in a cumulatively considerable incremental contribution that, when combined with the past, present, and reasonably foreseeable future projects, would result in a cumulatively significant impact.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects are identified in Chapter 3, Section 3.3.2, under *Cumulative Impacts*. Past and present projects have resulted in an increase in recreational facilities and open space in the Plan Area. These projects have provided a beneficial cumulative effect because of the continued operation and management of available park lands and recreational opportunities to the public in the Plan Area.

Past and present projects have resulted in substantial modification to the visual resources of the Plan Area. These projects have converted natural habitat communities to agricultural land uses and converted agricultural land uses to urban and suburban land uses. These projects have generally contributed to an incrementally cumulative effect on the visual resources of the landscape.

Alternative 1—No Action (No Plan Implementation)

Recreation and Open Space

The City of Gridley determined that the recreational facilities within its jurisdiction would experience cumulatively considerable and significant impacts; no other local jurisdiction made this determination. Therefore, past, present and reasonably foreseeable future projects, including implementation of the general plans of the cities and the county, would result in cumulatively considerable and significant impacts on recreational resources. Although there would be no conservation strategy or conservation measures, Alternative 1 would contribute to cumulative impacts as determined in the Gridley general plan EIR.

Visual Resources

The City of Gridley determined that the visual resources in its jurisdiction would experience cumulatively considerable and significant impacts; the City of Chico also determined that the general

visual character and quality of Chico would result in cumulatively considerable and significant impacts associated with the conversion of undeveloped land to urban and suburban uses. Therefore, past, present, and reasonably foreseeable future projects, including implementation of the general plans of the Cities and the County, would result in cumulatively considerable and significant impacts on visual resources.

Although there would be no conservation strategy or conservation measures, the Alternative 1 would contribute to cumulative impacts as determined in the Gridley and Chico general plan EIRs.

Alternative 2—Proposed Action

Recreation and Open Space

The City of Gridley determined that the visual resources in its jurisdiction would experience cumulatively considerable and significant impacts; no other local jurisdiction made this determination. Therefore, past, present and reasonably foreseeable future projects—including implementation of the general plans—would result in cumulatively considerable and significant impacts on recreational resources. The covered activities identified for water districts or irrigation districts and/or the conservation strategy and conservation measures, combined with other conservation planning, would maintain large areas of open space, which is a land use that does not place high demand on recreational services. Furthermore, the conservation strategy and conservation measures would provide opportunities for additional recreation and open space use by the public (e.g., managed wetlands).

Although there would be no impacts generated by the additional activities (i.e., conservation strategy or conservation measures) beyond implementation of the general plans, Alternative 2 would contribute to cumulative impacts as determined in the Gridley general plan EIR.

Visual Resources

The City of Gridley determined that the visual resources in its jurisdiction would experience cumulatively considerable and significant impacts; the City of Chico also determined that the general visual character and quality of Chico would result in cumulatively considerable and significant impacts associated with the conversion of undeveloped land to urban and suburban uses. Therefore, past, present, and reasonably foreseeable future projects, including implementation of the general plans of the Cities and the County, would result in cumulatively considerable and significant impacts on visual resources. The covered activities identified for water districts or irrigation districts and/or the conservation strategy and conservation measures, combined with other conservation planning, would generally occur where flat agricultural lands and row crops are replaced by restored riparian vegetation. Such a change would increase visual diversity because natural areas are rarer scenic features in the Plan Area than are agricultural lands. Furthermore, restored/enhanced sites would increase the amount of native vegetative communities that attract wildlife, thus helping to improve the visual quality and diversity of the restored areas. The visual characteristics of these restored/enhanced landscapes would be similar to other natural areas in the Plan Area and would increase the Plan Area's overall amount of natural land, which is less extensive than the widespread areas of agricultural development. In this sense, the BRCP would have an overall beneficial effect related to the enhancement and creation of scenic vistas and beneficially adding to the visual character and quality in the Plan Area.

Although there would be no impacts generated by the additional activities (i.e., conservation strategy or conservation measures) beyond implementation of the general plans, Alternative 2 would contribute to cumulative impacts as determined in the Gridley and Chico general plan EIRs.

Alternative 3—Reduced Development/Reduced Fill and Alternative 4—Greater Conservation

Recreation and Open Space

The extent of available recreational facilities and open space associated with implementation of the water districts' and irrigation districts' covered activities and the conservation strategy and conservation measures differs slightly between these two alternatives. However, the mechanism and implications are similar to or slightly reduced compared to Alternative 2. Each of these alternatives would result in an incremental contribution to cumulative impacts. Although there would be no impacts generated by the additional activities (i.e., conservation strategy or conservation measures) beyond implementation of the general plans, Alternative 2 would contribute to cumulative impacts as determined in the Gridley general plan EIR.

Visual Resources

The extent of conversion of undeveloped land to urban and suburban uses and the overall amount of restored/enhanced lands associated with implementation of the water districts' and irrigation districts' covered activities and the conservation strategy and conservation measures differs slightly between these two alternatives. However, the mechanism and implications are similar to or slightly reduced compared to Alternative 2. Each of these alternatives would not result in an incremental contribution to cumulative impacts. Although there would be no impacts generated by the additional activities (i.e., conservation strategy or conservation measures) beyond implementation of the general plans, Alternative 2 would contribute to cumulative impacts as determined in the Gridley and Chico general plan EIRs.

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Chapter 14

Population and Housing, Socioeconomics, and Environmental Justice

14.1 Affected Environment

This section discusses the regulatory setting for population and housing, socioeconomics, and environmental justice, identifying the laws and policies that govern the decision-making processes of relevant federal, state, and local agencies with a role in implementing the alternatives. This section also provides an overview of social and economic conditions, demographics, and the characteristics of minority and low-income populations in the Plan Area that are relevant for analysis of environmental justice effects.

14.1.1 Regulatory Setting

Federal

Population and Housing

There are no federal regulations pertaining to housing and population.

Socioeconomics

National Environmental Policy Act

NEPA requires an EIS to consider social and economic effects if they are related to effects on the natural or physical environment. The NEPA definition of effects includes social and economic factors (40 CFR 1508.8, 1508.14). However, the intent of NEPA is that social and economic effects alone should not trigger preparation of an EIS (40 CFR 1508.14).

Environmental Justice

Executive Order 12898

Environmental justice is rooted in the Civil Rights Act of 1964, which prohibited discrimination in federally assisted programs, and in Executive Order (EO) 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), issued February 11, 1994. EO 12898 was intended to ensure that federal actions and policies do not result in disproportionately high adverse effects on minority or low-income populations. It requires each federal agency to take “appropriate and necessary” steps to identify and address any such disproportionate effects resulting from its programs, policies, or activities, including those it implements directly, as well as those for which it provides permitting or funding.

Council on Environmental Quality Guidance

CEQ guidance (Council on Environmental Quality 1997) for performing environmental justice analyses as part of the NEPA process provides definitions, thresholds, and overall methodological guidance for environmental justice analyses. The analysis used the definitions of minority and low-income populations provided in CEQ's *Guidance for Agencies on Key Terms in Executive Order 12898* (Council on Environmental Quality 1997) as shown below.

Minority individuals are defined as members of the following population groups.

- American Indian or Alaskan Native.
- Asian or Pacific Islander.
- Black.
- Hispanic.

Minority populations are identified by the following factors.

- Where the minority population percentage of the affected area is meaningfully greater than the minority population percentage of the general population.
- Where the minority population percentage of the affected area exceeds 50% (Council on Environmental Quality 1997).

Low-income populations are identified on the basis of poverty thresholds provided by the U.S. Census Bureau (Council on Environmental Quality 1997), and identified as one of the following.

- The percentage of the population below the poverty level is meaningfully greater than the corresponding percentage in the general population.
- The percentage of the population below the poverty level in the affected area is 20% or more.

Significant concentrations of minority or low-income individuals are sometimes referred to as *environmental justice populations*. Historically, low-income and minority populations have suffered a greater share of the adverse environmental and health effects of industry and development relative to the benefits than has the general population. The identification and mitigation of this potentially disproportionate burden is referred to as *environmental justice* (Rechtchaffen and Gauna 2002). The current regulatory framework for environmental justice reflects the convergence of civil rights concerns and environmental review processes. In the 1980s community organizers and environmental regulators identified three interrelated concerns. First, these groups identified a significant correlation between hazardous waste and other polluting facilities and demographic concentrations of minority and low-income communities. Second, advocates noticed that minority and low-income communities incurred a greater burden of environmental consequences relative to the benefits of industry and development than did the population at large. Third, minority and low-income communities often suffered a relative lack of access and involvement in environmental decision making relative to the population at large (Rechtchaffen and Gauna 2002). Environmental justice is now regulated through federal policy, with the assessment of environmental justice effects occurring as part of the NEPA process.

Please refer to the Section 14.1.4, *Methods for Impact Analysis*, for additional overview of the CEQ guidance used in this analysis.

Environmental Compliance Memorandum No. ECM 95-3

Memorandum No. ECM 95-3 provides guidance for complying with EO 12898 for U.S. Department of the Interior (DOI or Department) actions and programs (U.S. Department of the Interior 1995a). It stipulates that environmental documents prepared by DOI agencies must analyze the impact of agency actions on minority and low-income populations. The memorandum directs agencies to evaluate the equity of the impacts imposed on these populations relative to the benefit of the action. The relevant environmental document should identify any such impacts, or the absence of impacts, on minority and low-income populations.

U.S. Department of Interior's Environmental Justice Strategic Plan

DOI has adopted a plan that governs the actions of all constituent agencies within the Department, including USFWS. The DOI Environmental Justice Strategic Plan—1995 provides the following goals (1995b).

Goal 1: The Department will involve minority and low-income communities as we make environmental decisions and assure public access to our environmental information.

Goal 2: The Department will provide its employees environmental justice guidance and with the help of minority and low-income communities develop training which will reduce their exposure to environmental health and safety hazards.

Goal 3: The Department will use and expand its science, research, and data collection capabilities on innovative solutions to environmental justice-related issues (for example, assisting in the identification of different consumption patterns of populations who rely principally on fish and/or wildlife for subsistence).

Goal 4: The Department will use our public partnership opportunities with environmental and grassroots groups, business, academic, labor organizations, and federal, Tribal, and local governments to advance environmental justice.

The plan in turn reflects DOI's early guidance implementing EO 12898 (U.S. Department of the Interior 1995a). This guidance indicates that constituent agencies within DOI should identify the effects of agency actions on minority and low-income communities and analyze the equity of the distribution of benefits and risks of agency actions, as described above (U.S. Department of the Interior 1995a). As an agency under DOI, USFWS is subject to this policy, and also refers to the text of EO 12898 in its NEPA guidance (U.S. Fish and Wildlife Service 1999).

State**Population and Housing****California Government Code Section 65302(c)**

The state requires all local general plans to include a housing element. The discussion of local regulations below provides relevant descriptions for each local jurisdiction.

California Government Code Section 65584

The state requires Regional Housing Needs Plans (RHNP)s to be developed by local jurisdictions based on countywide housing projections developed by the California Department of Housing and Community Development. See local regulations below for a description of the RHNA for Butte County.

Socioeconomics

California Environmental Quality Act

CEQA requires analysis of a proposed project's potential impacts on population growth and housing supply, but social and economic changes are not considered environmental impacts in and of themselves under CEQA. CEQA does not require a discussion of socioeconomic effects except where they would result in physical changes, and states that social or economic effects shall not be treated as significant effects on the environment (State CEQA Guidelines Sections 15064[f] and 15131).

Environmental Justice

California Senate Bill 115 (Solis)

Approved in 1999, California Senate Bill 115 (Solis) added Section 65040.12 to the Government Code and Part 3 to Division 34 of the Public Resources Code, both of which concern environmental justice. The bill provides that the Office of Planning and Research is the coordinating agency in California state government for environmental justice programs. The bill also defines environmental justice as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws and policies.”

California Government Code Section 65040.12

For the purposes of Government Code Section 65040.12, environmental justice is defined as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.”

Section 65040.12 requires the Office of Planning and Research to take the following actions.

1. Consult with the Secretaries of the California Environmental Protection Agency, the Resources Agency, and the Business, Transportation and Housing Agency; the Working Group on Environmental Justice established pursuant to Section 72002 of the Public Resources Code; any other appropriate state agencies; and all other interested members of the public and private sectors in this state.
2. Coordinate the office's efforts and share information regarding environmental justice programs with CEQ, EPA, the General Accountability Office, the Office of Management and Budget, and other federal agencies.
3. Review and evaluate any information from federal agencies that is obtained as a result of their respective regulatory activities under EO 12898, and from the Working Group on Environmental Justice established pursuant to Section 72002 of the Public Resources Code.

Section 65040.12 also requires the Office of Planning and Research to establish guidelines for addressing environmental justice issues in city and county general plans, including planning methods for the equitable distribution of public facilities and services, industrial land uses, and the promotion of more livable communities.

Public Resources Code Sections 71110–71116

Public Resources Code Sections 71110–71116 require the California Environmental Protection Agency (Cal/EPA) to develop a model environmental justice mission statement for boards, departments, and offices in the agency. Section 71113 requires Cal/EPA to convene a Working

Group in Environmental Justice to develop a comprehensive environmental justice strategy. The sections also require this strategy to be reviewed and updated. Finally, Section 71116 establishes a small grant program for nonprofit organizations and federally recognized tribal entities to research environmental justice issues in their community and address larger environmental justice issues.

California Resources Agency Environmental Justice Policy

This policy implements the requirements of California Government Code Section 65040.12 for California Resources Agency actions and programs. The policy states that these provisions apply to agency actions, which are defined as follows (California Resources Agency 2012).

- Adopting regulations.
- Enforcing environmental laws or regulations.
- Making discretionary decisions or taking actions that affect the environment.
- Providing funding for activities affecting the environment.
- Interacting with the public on environmental issues.

Collectively, these policies stand for the principle that California state agencies should analyze the effects of their actions on minority and low-income groups, and seek to avoid disproportionate effects on these groups where feasible.

Local

Population and Housing

Local governments are required to adopt and periodically update the housing elements of their general plans as stated in California Government Code Section 65302(c). The guidelines and requirements for housing elements are outlined by the California Department of Housing and Community Development (HCD).

Butte County

Regional Housing Needs Plan

The RHNP is for the cities of Biggs, Chico, Gridley, and Oroville; the town of Paradise; and Butte County. The purpose of the RHNP is to allocate to the cities and county their “fair share” of the region’s projected housing need by household income group over the seven-and-a-half year planning period covered by the plan. The RHNP ensures a fair distribution of housing among the cities and county, so that every community provides an opportunity for a mix of housing affordable to all economic segments. The housing allocation targets are not building requirements, but rather are goals for each community to accommodate through appropriate planning policies and land use regulations. They are not housing unit quotas that jurisdictions must achieve within the timeframe of their next housing element update.

The 2007 RHNP was adopted in 2008 and covers the 2007 through 2014 planning horizon (the time in which the Notice of Intent/Notice of Preparation for this EIS/EIR was released). BCAG prepared and approved a more recent RHNA in 2012, covering the 2014 through 2022 planning horizon.

Housing Element

The *Butte County Housing Element* (Butte County 2012a) identifies the County's goals, objectives, policies, and actions relative to the improvement, development, and maintenance of housing in the county. The Housing Element contains six overarching goals that range in topic from providing adequate and affordable housing to promoting energy efficiency. The objectives, policies, and actions are more specific and aim to help the County achieve its Housing Element goals.

City of Oroville

The City of Oroville's Housing Element (City of Oroville 2009a) contains five goals to enhance, increase, improve, and preserve the City's housing stock in a fair and equitable manner. These goals include increasing housing availability and providing housing free of discrimination. The Housing Element also contains objectives, policies, and actions with more specific information on how to obtain funding and other means to achieve the City's Housing Element goals.

City of Biggs

The City of Biggs' Housing Element (City of Biggs 2014) establishes goals, policies, and programs that concentrate on four specific aspects of the housing market: housing quality, housing quantity and affordability, equal housing opportunity, and natural resources and energy conservation. The purpose of these goals is to create a housing program that preserves, improves, and develops housing for the City, and to address the housing needs identified in BCAG's 2007 Draft Regional Housing Needs Program.

City of Chico

The City of Chico's Housing Element (City of Chico 2011a) contains seven goals that aim to meet the housing needs of existing and future city residents. The goals range in topic from increasing equal housing opportunities to reinvesting in existing neighborhoods. The associated policies and actions support the City's Housing Element goals.

City of Gridley

The City of Gridley's Housing Element (City of Gridley 2010) contains six goals that range in topic from housing quality and quantity to natural resources and energy conservation. The associated policies and actions support the City's Housing Element goals.

Socioeconomics

There are no local regulations pertaining to socioeconomics. However, California Government Code Section 65302 requires the preparation of general plans by local governments; these governments can include an economics element. Relevant elements are discussed below.

City of Biggs

The City's Economic Development Element contains six goals related to economic development. These goals range in topic from encouraging new development to revitalizing the City's core. The associated policies and actions support the City's Economic Development goals.

City of Chico

The City of Chico's Economic Development Element (City of Chico 2011a) guide's the City's use of resources. The Economic Development Element contains three goals that, along with associated policies and actions, are focused on maintaining long-term prosperity, increasing tourism, and creating a redevelopment strategy.

Environmental Justice

There are no local regulations pertaining to environmental justice.

14.1.2 Environmental Setting

Population and Demographics

As of 2010, Butte County's population was 220,000 with, according to the U.S. Census Bureau, a density of 124 persons per square mile, compared with a state average of 217 persons per square mile. Based on an evaluation of the 2010 census blocks, the population of the Plan Area is approximately 172,522.¹

Although the county population has been steadily increasing, the population of unincorporated areas has been declining as people move to urban areas and the annex areas of the cities to accommodate this growth (Butte County 2012a). Table 14-1 lists the populations of the cities of Biggs, Chico, Gridley, and Oroville and the population of the county as a whole (U.S. Census Bureau 2011).

Table 14-1. Butte County City/County Population Data

Jurisdiction	Population Total 2010
City of Biggs	1,707
City of Chico	86,187
City of Gridley	6,584
City of Oroville ^a	29,568
Butte County	220,000

Source: U.S. Census Bureau 2011.

^a Includes Census data collected for Oroville East and South Oroville census-designated places.

Butte County is a generally rural area, with more than 60% of the county area designated for agricultural uses. Much of this agricultural land is in the western portion of the county. As of January 2010, approximately 61% of the county's population resided in the incorporated cities of Biggs, Chico, Gridley, Oroville, and town of Paradise. Based on BCAG's population growth projections, the county's population is projected to grow at an average annual rate of 1.6%, and the unincorporated county is predicted to grow at an average annual rate of 1.3% (Table 14-2) (Butte County Association of Governments 2011). The median age in the county is 37.2, ranging from 27.4 in

¹ The entire population of census blocks more than 50% within the Plan Area is included in the population for the Plan Area.

Gridley to 35 in Biggs.² Table 14-3 shows racial characteristics for the county as reported in the 2010 census.

Table 14-2. Butte County Population and Growth Estimates for 2010-2035 (Medium Scenario)

Area/Jurisdiction	2010	2015	2020	2025	2030	2035	Total Increase	Percent Increase
Incorporated Cities								
Biggs	1,787	2,139	2,774	3,267	3,830	4,265	2,678	150
Chico	88,228	92,678	99,766	110,046	121,407	133,944	45,716	52
Gridley	6,454	7,890	9,986	11,633	13,556	15,428	8,974	139
Oroville	14,687	16,755	20,063	24,359	26,921	29,770	15,083	103
Unincorporated County	84,302	90,102	96,311	102,600	109,342	116,424	32,122	38
Butte County	221,768	236,800	257,266	281,558	306,047	332,459	110,691	50

Source: Butte County Association of Governments 2011. Butte County Long-Term Regional Growth Forecasts Available at:
< http://www.bcag.org/documents/demographics/pop_emp_projections/Growth_Forecasts_2010-2035.pdf > Accessed on: May 9, 2013.

Note: Paradise is not included in this table because it is not within the Plan Area.

Table 14-3. 2010 Census Data on Race in Butte County

Racial Group	California	Butte County	Percent of County Total
White	21,453,934	180,096	74.8
Hispanic origin (of any race)	14,013,719	31,116	13.0
Asian & Pacific Islander	5,005,393	9,509	4.0
Black or African American	2,299,072	3,415	1.4
American Indian & Alaska Native	362,801	4,395	1.8
Other races	6,317,372	12,141	5.0
Total	49,452,291	240,672	100

Sources: U.S. Census Bureau 2010a.

Housing

The number of housing units in Butte County has been growing steadily for the past decade. The California Department of Finance (2011) estimates that the county had a total of 96,623 housing units in January 2010, with 61,708 single-family homes and approximately 34,915 multifamily housing units and mobile homes (Table 14-4). The average household size in the county is approximately 2.45 people, ranging between 2.6 in Oroville and 3.16 in Gridley (U.S. Census Bureau 2009, 2010a). The county's vacancy rate was 6.44% in 2010. The vacancy rate in Biggs was 6.62%, while the vacancy rate in Gridley was 6.17% (California Department of Finance 2011). The vacancy rate in Chico was 6.1%, while the vacancy rate in Oroville was 8.8% in 2010 (U.S. Census Bureau

² Median age was not available in the 2010 Census for the cities of Biggs and Gridley. Therefore, the data represents the 2005-2009 American Community Survey.

2011). Vacancy rates are lower in the City of Chico, likely due to California State University, Chico's presence; housing is typically in higher demand near college campuses.

Housing stock also continues to grow in Biggs, Chico, Gridley, and Oroville. BCAG projects an annual growth rate for housing of 1.6% for the county and 3.7%, 1.7%, 3.5% and 2.9% for Biggs, Chico, Gridley, and Oroville, respectively. Table 14-5 shows the projected housing growth between 2010 and 2035 (Butte County Association of Governments 2011).

Table 14-4. Butte County City/County Housing Data (Housing Units)

City in Butte County	Total 2010	2010 Occupied	2010 Vacant
City of Biggs	617	556	52
City of Chico	37,050	34,805	2,245
City of Gridley	2,406	2,183	223
City of Oroville ^a	11,801	10,740	1,061
Butte County	95,835	87,618	8,217

Source: U.S. Census Bureau 2011.

^a Includes Census data collected for Oroville East CDP and South Oroville CDP.

Table 14-5. Butte County City/County Housing Data Projections (Medium Scenario, Number of Housing Units)

Area/Jurisdiction	2010	2015	2020	2025	2030	2035	Total Increase	Percent Increase
Incorporated Cities								
Biggs	634	759	984	1,159	1,359	1,584	950	150
Chico	37,159	39,034	42,019	46,349	51,134	56,414	19,255	52
Gridley	2,449	2,994	3,789	4,414	5,144	5,854	3,405	139
Oroville	6,393	7,293	8,733	10,603	11,718	12,958	6,565	103
Unincorporated County	37,199	39,759	42,499	45,274	48,249	51,374	14,175	38
Butte County	96,623	103,078	111,813	122,213	132,668	143,948	47,325	49

Source: Butte County Association of Governments 2011.

Note: Paradise is not included in this table since it is not within the Plan Area

Income and Employment

The county's annual median household income between 2007 and 2011 was \$57,911 (U.S. Census Bureau 2012). Median household incomes vary somewhat among the cities in the County (Table 14-6). The cities of Biggs, Gridley, and Oroville have per-capita incomes substantially lower than that of the county.

Table 14-6. Economic Data for Butte County and Incorporated Cities

	Butte County	Biggs	Chico	Gridley	Oroville
Median household income (dollars)	57,911	56,527	59,168	52,202	51,867
Income per capita (dollars)	23,431	18,690	24,418	18,262	19,488
Individuals below poverty level (percent)	19.8	22.6	21.1	20.1	22.9
Families below poverty level (percent)	12.4	16.8	12.2	13.9	15.7

Source: U.S. Census Bureau 2012.

In 2011, approximately 1,600 total wage and salary jobs were lost in the county, a decline of 2.2%. During this time, most industries were characterized by declining employment. Between 2012 and 2017 employment is expected generally to grow in professional service, retail trade, leisure and hospitality, and the public sector. These sectors are expected to account for more than 50% of all jobs created in the county. Total taxable sales are forecasted to rise by 3.5% between 2012 and 2017, and industrial production is anticipated to remain stable at approximately 3% per year. Table 14-7 presents the county's employment by industry (California Department of Transportation 2012).

Table 14-7. Butte County Employment (thousands of jobs)

Sector	2011	2012 Forecast	2017 Forecast	2030 Forecast
Farm	2.59	2.63	2.75	2.81
Construction	2.4	2.5	3.0	3.0
Manufacturing	3.6	3.7	4.0	4.2
Transportation & Utilities	1.6	1.6	1.8	2.1
Wholesale & Retail Trade	10.9	11.1	12.7	14.8
Financial Activities	3.0	3.2	3.7	4.1
Professional Services	5.2	5.5	6.7	8.5
Information	1.0	1.0	1.1	1.1
Health & Education	13.4	13.4	14.2	16.8
Leisure	7.0	7.1	8.0	9.3
Government	15.7	15.5	16.7	17.9
Total Wage and Salary	70.0	71.1	79.7	91.5

Source: California Department of Transportation 2012. Available at:
http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2012/Butte.pdf Accessed on:
 May 13, 2013.

Labor force trends in Butte County show that over the past 10 years, the unincorporated county has generally maintained slightly lower unemployment rates than the total county (Butte County 2012a). While labor force trends are similar to statewide trends, the unemployment rates of both the county as a whole and the unincorporated portion were consistently higher than statewide unemployment rates (Butte County 2012a). Total wage and salary job growth is anticipated to be 1.6% in 2012 and is expected to grow an average of 2.2% per year between 2012 and 2017. The unemployment rate improved slightly in 2011 compared to previous years, dropping from 14.4% to 13.8% (California Department of Transportation 2012).

Agriculture

In 2010, the estimated gross value of agricultural production in all of Butte County was approximately \$622 million (Butte County 2010a). Specialty crops and industries, including organic farming and agricultural tourism, also contribute to the agricultural economy. As of 2010, registered organic producers and certified organic producers generated more than \$8 million dollars of revenue (Butte County 2010a). Table 14-8 identifies the value of the county's top ten crops in 2010 dollars.

Table 14-8. Butte County's Top Ten Crops (2010)

Commodity	Value (dollars)
Rice	182,248,000
Walnuts	173,392,000
Almonds	113,781,000
Dried Plums	42,566,000
Nursery stock	23,837,000
Cattle and calves	11,714,000
Rice seed	10,494,000
Fruit and nut (misc.)	10,494,000
Peaches—clingstone	9,690,000
Kiwis	8,177,000
Olives (all)	7,270,000
Apiary pollination	7,078,000
Source: Butte County 2010a.	

Property Tax Revenues

Butte County property tax revenues for the 2011–2012 fiscal year totaled \$195 million (Butte County 2011). The average tax rate on property with a home is 0.6% of the home value, although actual tax rates vary between tax rate zones (Tax Rates.org 2013). Property tax revenues generated by the county are limited by Williamson Act contracts. Tax revenues generated by agriculture are generally lower than would be generated by other uses on the same land. (See Chapter 4, *Agricultural and Forestry Resources*, for additional information regarding the Williamson Act).

Environmental Justice Populations

The following discussion describes minority, Hispanic, and low-income communities in the Plan Area based on data from the 2010 decennial census. This section first identifies the census blocks with meaningfully greater total minority and Hispanic populations. A description of the overall distribution of minorities in the Plan Area follows. The section then describes block groups with meaningfully greater low-income populations as well as relevant employment characteristics associated with these populations.

The U.S. Census Bureau collects comprehensive demographic data every 10 years during the decennial census. This analysis uses data from the 2010 decennial census data (i.e., Census 2010). The U.S. Census Bureau collects demographic information on ethnicity at the level of census blocks

(the smallest geographic unit used by the U.S. Census Bureau). Generally, several census blocks make up block groups, which in turn make up census tracts. The population of a census block can vary, depending on the urban or rural character of the area. The U.S. Census Bureau considers Hispanic status to reflect a geographic place of origin rather than ethnicity; data on Hispanic status are collected at the block level.

Minority Populations

Total minority data include the constituent ethnic categories of Black/African-American, Asian, Native Hawaiian or Pacific Islander, and American Indian or Alaskan Native. Consistent with the CEQ's 1997 Guidance, census blocks with more than 50% total minority were identified within the Plan Area.

Figure 14-1 depicts the census blocks within the Plan Area with minority populations of greater than 50%. These data were generated based on census data collected for all minority and Hispanic populations within the Plan Area. In general, Figure 14-1 shows a wide distribution over the Plan Area of census blocks with meaningfully greater minority populations. Areas exhibiting high proportions of minority residents are present in both urban and rural areas. Tables 14-9a and 14-9b identify the minority populations per census block and UPA in the Plan Area.

Table 14-9a. Census Blocks with Greater than 50% Minority or Hispanic Populations by Local Jurisdiction within the Plan Area

Local Jurisdiction	Number of Census Blocks
Biggs	6
Chico	57
Gridley	31
Oroville	117
County	99
Total	310

Table 14-9b. Census Blocks with Greater than 50% Minority or Hispanic Populations by UPA within the Plan Area

UPA Name	Number of Census Blocks
Bangor	3
Chico	57
County	66
Dayton	1
Durham	2
Foothill Area	2
Gridley-Biggs	39
Honcut	2
Nord	1
Oroville	136
Rangor	1
Total	310

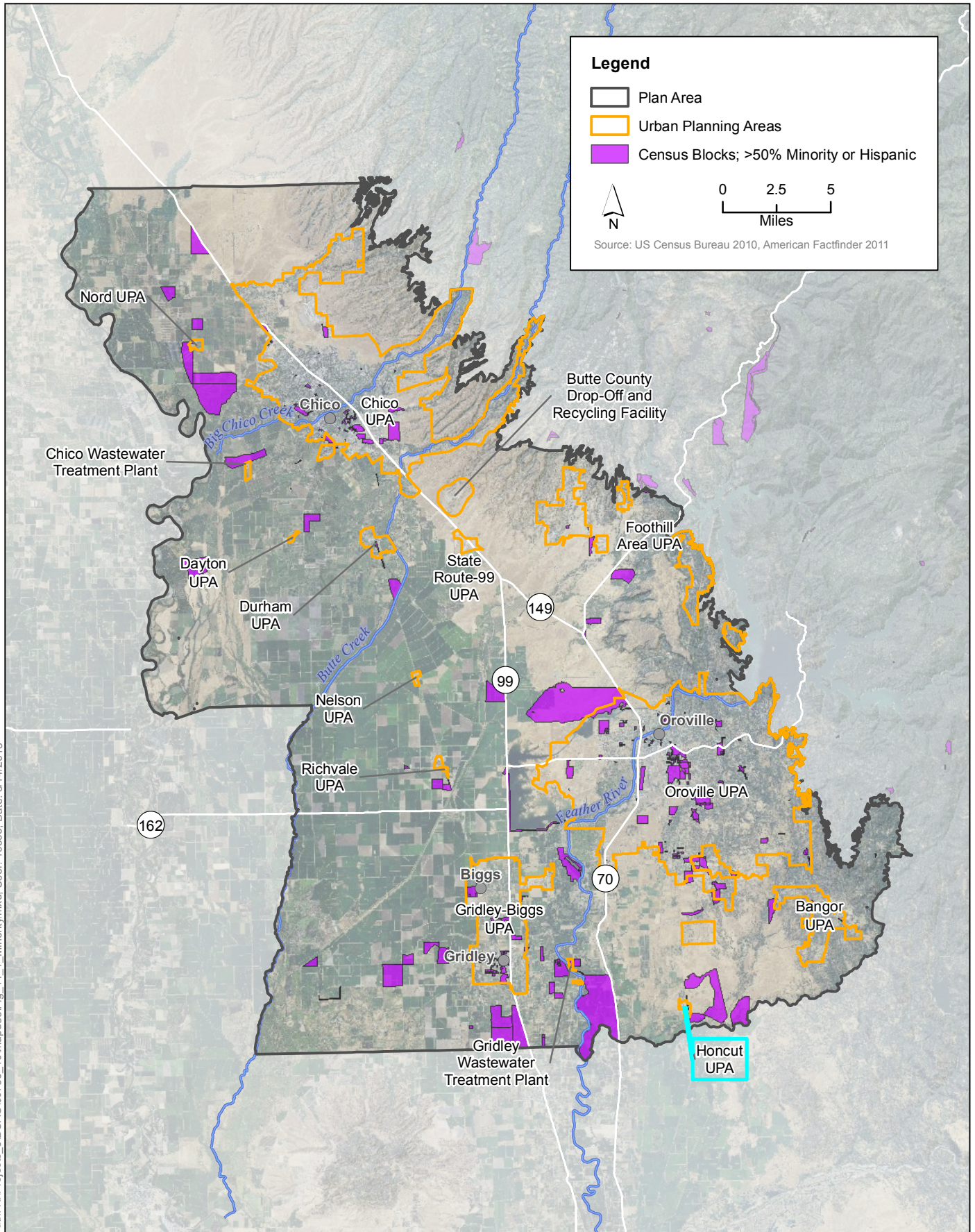


Figure 14-1
Minority Populations in the Plan Area

Hispanic Residents

Hispanic populations include persons originating in or descended from populations in Latin America and portions of the Caribbean. Consistent with CEQ's 1997 Guidance, census blocks with greater than 50% total Hispanic populations were identified within the Plan Area. Figure 14-1 and Tables 14-9a and 14-9b show the distribution of areas with meaningfully greater proportions of Hispanic residents in the study area. Of minority groups present in the study area, Hispanics are the most widely dispersed, being present in both urban and rural locations.

Low-Income Populations

The U.S. Census Bureau collects poverty status data at the level of census block groups, a geographic unit that includes census blocks but is smaller than census tracts. For purposes of this analysis, low-income populations consist of persons living below the 2010 poverty threshold as defined by the U.S. Census Bureau (U.S. Census Bureau 2010b). Low-income populations were identified as block groups that contained 20% or more low-income individuals (i.e., below the 2010 poverty threshold). Because the income required to sustain a household varies in relation to the number of individuals dependent on a given quantity of income, there is no single threshold for poverty status (U.S. Census Bureau 2010b). The 20% threshold was used because the cost of living in California is higher than elsewhere in the country, and thus the use of a 50% threshold might incorrectly under identify low-income populations in the study area.

Figure 14-2 shows the distribution of areas with meaningfully greater proportions of low-income households in the Plan Area. Low-income populations were identified based on the Federal poverty threshold in 2010 as defined by the U.S. Census Bureau (U.S. Census Bureau 2010b). Generally, there are three distinct areas of meaningfully greater proportions of low-income households: around Oroville and to the north of Oroville, around Chico and to the south of Chico, and north of Big Chico Creek. Table 14-10 identifies the low-income populations per census block and UPA in the Plan Area.

Table 14-10. Low Income Populations in the Plan Area

General Plan Area/UPA	Census Tracts with 20% or More of Households in Poverty
Chico GP Area/UPA	4
Oroville GP/UPA	2
County (outside UPAs)	2
Total	8

14.2 Environmental Consequences

This section incorporates by reference the impact determinations presented for population and housing in the Local Agencies' general plan EIRs (as described in more detail in Section 3.3, *Resource Chapter Organization and NEPA/CEQA Requirements*).³ The significance findings and mitigation

³ These previous CEQA documents are available collectively for public review at the BCAG offices (2580 Sierra Sunrise Terrace, Suite 100 Chico, CA 95928-8441). Individual general plans and EIRs are also available at each of the respective land use agencies.

measures of each of the general plan EIRs are compiled in Appendix C. The Lead Agencies have reviewed these analyses and found them to be appropriate for the purposes of this EIS/EIR.

14.2.1 Methods for Impact Analysis

The BRCP would not provide individual project approvals or entitlements for any private or public development or infrastructure projects. Accordingly, this EIS/EIR does not provide CEQA or NEPA coverage for individual covered activities and does not function as a *programmatic* or *umbrella* CEQA or NEPA document for regional development and infrastructure projects. The BRCP EIS/EIR evaluates only the adverse and beneficial environmental effects associated with the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. Accordingly, the methods for analyzing direct impacts on population and housing, socioeconomics, and environmental justice are tailored to evaluate the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. This EIS/EIR also incorporates the impact determinations of the Local Agencies' general plan EIRs to analyze indirect impacts on population and housing, socioeconomics, and environmental justice.

Population and Housing

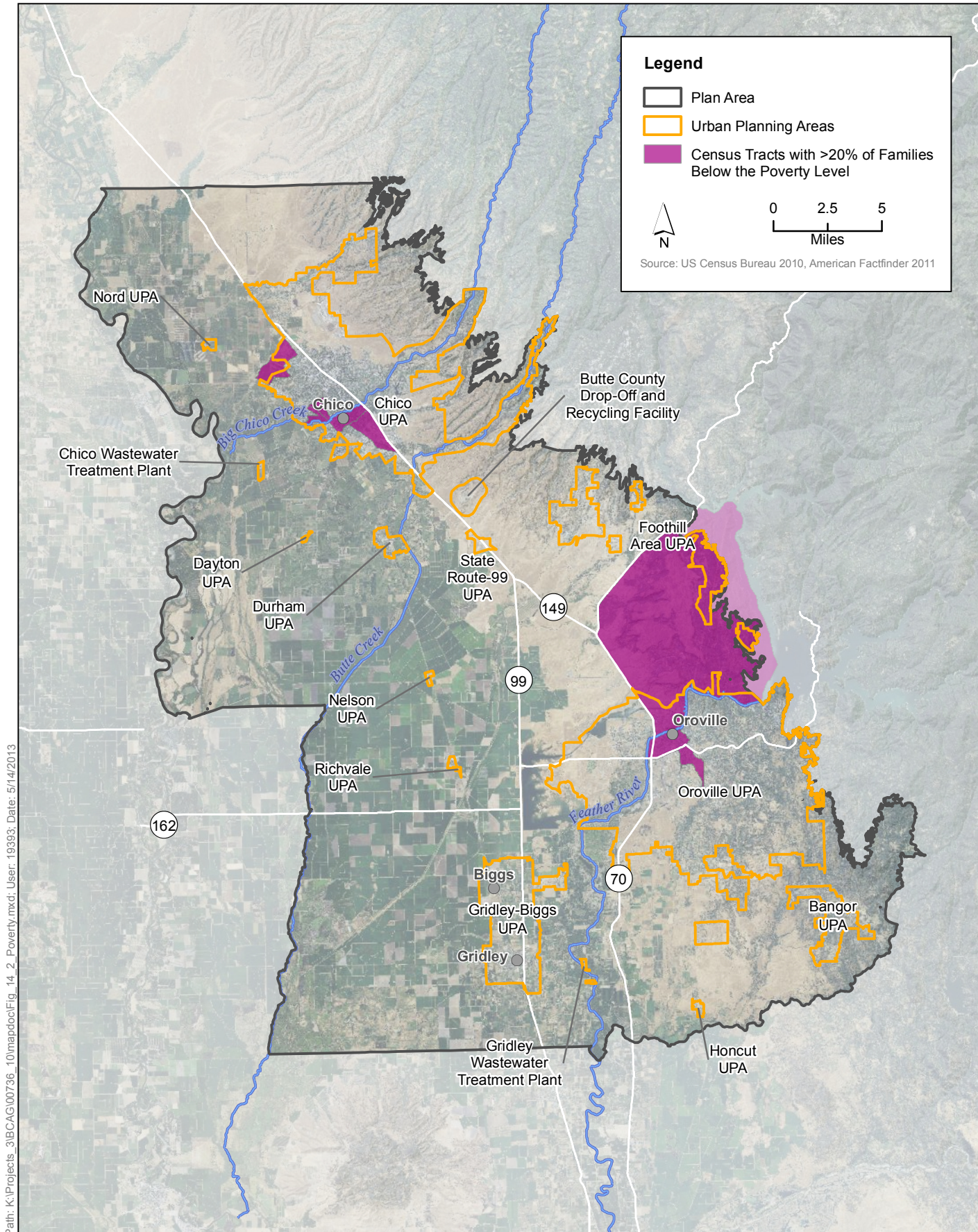
The effects of the action alternatives on population and housing are evaluated qualitatively. Generally, population and housing impacts could occur if covered activities within the Local Agencies' jurisdictions (i.e., within the UPAs) cause substantial increases in population or growth or result in the substantial displacement of existing housing or people. These impacts could be caused by implementation of the general plan or future development within the jurisdictions of the Local Agencies.

In adopting the EIRs for their respective general plans, each Local Agency, except the Cities of Gridley and Oroville, determined that the programmatic impacts on population and housing would be less than significant or mitigated to a less-than-significant level through implementation of general plan policies and adoption of identified mitigation measures. The Cities of Gridley and Oroville have determined that significant and unavoidable impacts would result from substantial population growth in their respective plan areas. It is assumed that all covered activities approved by the Local Agencies would be consistent with the policies of their respective general plans and would be subject to any mitigation measures identified.

The covered activities associated with activities outside the Local Agencies' jurisdictions are analyzed qualitatively for their potential to affect population and housing. Population and housing impacts could be caused by infrastructure development by the water or irrigation districts if these types of covered activities result in substantial increases in population growth or displace existing housing or people.

Socioeconomics

The effects of the action alternatives on socioeconomics are evaluated qualitatively. Generally, socioeconomic effects could occur if the alternatives result in a substantial change in wages earned in the current employment sectors through the displacement of nonagricultural or agricultural businesses or in a substantial reduction in property tax revenue. Such a reduction could occur if land currently used for nonagricultural and agricultural businesses is converted into public uses as a result of the restoration activities identified in the BRCP that do not contribute to property taxes



Path: K:\Projects_3\BCAG\00736_10\mapdoc\Fig_14_2_Poverty.mxd; User: 19393; Date: 5/14/2013

Figure 14-2
Percentage of Families Below the Poverty Level

(e.g., restored habitat). Accordingly, the analysis qualitatively addresses the potential conversion of agricultural lands to nonagricultural uses that do not generate tax revenue and estimates the degree to which implementing each alternative would reduce agricultural uses—affecting the agricultural economy of the region—or affect property tax revenues through acquisition of land for preserves. The analysis uses the potential loss of ricelands as a reference point for potential dollars lost, because rice is the county's largest agricultural product. References to Chapter 4, *Agricultural and Forestry Resources*, are made where appropriate. Since socioeconomic analysis is not required by CEQA, only a NEPA determination is made in the analysis.

Environmental Justice

This subsection describes how disproportionately high and adverse effects on environmental justice populations were identified. This methodology follows the general guidance provided by EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, CEQ's *Environmental Justice: Guidance under the National Environmental Policy Act* (Council on Environmental Quality 1997), and EPA's *Toolkit for Assessing Potential Allegations of Environmental Injustice* (U.S. Environmental Protection Agency 2004).

The following definitions were used to identify relevant populations and guide analysis of environmental justice issues. These definitions come from the CEQ guidance and EPA *Toolkit for Assessing Potential Allegations of Environmental Injustice*.

- **Minorities:** individuals who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black (not of Hispanic origin); or Hispanic (Council on Environmental Quality 1997). Hispanic or Latino refers to a place of origin whereas American Indian, Alaskan Native, Asian, Pacific Islander, and Black or African-American (as well as White or European-American) refer to racial categories; thus, for census purposes, individuals classify themselves into racial categories as well as place of origin categories, including Hispanic/Latino and non-Hispanic/Latino. The U.S. Census 2010 allowed individuals to choose more than one race. For this analysis, consistent with guidance from CEQ and EPA (U.S. Environmental Protection Agency 2004), minority refers to people who are Hispanic/Latino of any race, as well as those who are non-Hispanic/Latino of a race other than White or European-American.
- **Low-income:** low-income populations are identified using the national poverty thresholds from the U.S. Census Bureau (Council on Environmental Quality 1997).
- **Disproportionately high and adverse effects:** effects that are adverse under NEPA and disproportionately affect a minority or low-income community as described below. Where minority or low-income individuals constitute a meaningfully greater population, a disproportionately high and adverse finding is made.

The EPA *Toolkit for Assessing Potential Allegations of Environmental Injustice* (U.S. Environmental Protection Agency 2004) provides a general roadmap and methodology for the assessment of environmental justice effects. In accordance with this guidance, environmental justice effects are identified in a phased process with the following steps.

- **Problem formulation:** identify the scope of the action or program that may have environmental justice consequences and integrate the environmental justice assessment with parallel environmental review processes (U.S. Environmental Protection Agency 2004). For this chapter, the scope of the problem subject to analysis consists of all the alternatives.
- **Data collection:** collect information about sources of environmental or health effects in environmental justice populations and identify minority and low-income groups as well as appropriate reference populations (U.S. Environmental Protection Agency 2004). In Section

14.1.2, *Environmental Setting*, of this chapter, information about the distribution of environmental justice populations in the Plan Area is presented.

- **Identification of adverse effects:** identify significant environmental effects associated with the agency action or program that may affect environmental justice populations (U.S. Environmental Protection Agency 2004). This environmental justice assessment is limited to effects that have been identified as adverse even after mitigation as described in Chapters 4 through 13 and Chapter 15 of this EIS/EIR that may affect environmental justice populations. These effects are included in this chapter and analyzed for their potential to result in disproportionate adverse effects on environmental justice populations. Effects determined not to be adverse in Chapters 4 through 13 and Chapter 15 are not considered in the analysis below because those effects would not result in disproportionate effects on minority and low-income populations. In addition, significant effects that would not result in direct or discernable indirect effects on environmental justice populations are not included in the analysis. These would include terrestrial and aquatic resources, as any significant environmental effects that may be disclosed in Chapter 6, *Biological Resources*, would not result in direct or discernable indirect effects on environmental justice populations. This approach is consistent with CEQ guidance (Council on Environmental Quality 1997).
- **Identification of disproportionate effects:** use the information gathered in the identification of adverse effects and determine if these environmental consequences may disproportionately affect an environmental justice population as shown in Figures 14-1 and 14-2. Where effects are identified as adverse under NEPA, this analysis further identifies whether the adverse effects would result in disproportionately high and adverse effects on minority or low-income populations.

Because analysis of environmental justice impacts is not required by CEQA, only a NEPA determination is made.

14.2.2 Significance Criteria

Population and Housing

In accordance with Appendix G of the State CEQA Guidelines, the action alternatives would be considered to have a significant effect if they would result in any of the conditions listed below.

- Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).
- Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere.
- Displace a substantial number of people, necessitating the construction of replacement housing elsewhere.

Socioeconomics

For the purposes of this analysis, a socioeconomic impact is considered to be adverse if it would result in any of the following.

- Substantially change economic activity within the Plan Area.

- Substantially affect property tax revenue.

Environmental Justice

Federal CEQ guidance provides relevant thresholds for identification of environmental justice effects. The CEQ guidance identifies three factors to be considered to the extent practicable when determining whether environmental effects are disproportionately high and adverse (Council on Environmental Quality 1997).

- Whether there is or would be an impact on the natural or physical environment that significantly and adversely affects a minority population, or low-income population. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelated to impacts on the natural or physical environment. For the purposes of this analysis a significant and adverse effect on a minority population is found where significant environmental effects would occur in a location where minorities constitute greater than 50% of the population or low-income individuals constitute 20% or more of the population.
- Whether the environmental effects are significant and are or may have an adverse impact on minority populations, or low-income populations, which appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group. For the purposes of this analysis an effect appreciably exceeds the effect on the general population if it would occur in a location where minorities constitute greater than 50% of the population or low-income individuals constitute 20% or more of the population.
- Whether the environmental effects occur or would occur in a minority population or low-income population affected by cumulative or multiple adverse exposures from environmental hazards that appreciably exceed the cumulative or adverse exposure of the population at large. For the purposes of this analysis an effect appreciably exceeds the effect on the general population if the affected population is greater than 50% minority or 20% or greater low-income.

These standards are consistent with the standards of the California Resources Agency Environmental Justice Policy. This policy states that the Resources Agency and the constituent departments shall (California Resources Agency 2012) undertake the following.

- Identify relevant populations that might be adversely affected by programs or projects submitted by outside parties, as appropriate.
- Work in conjunction with other federal, state, regional, and local agencies to ensure consideration of disproportionate impacts on relevant populations

The factors and standards described above have been summarized into the following significance criteria. Therefore, for the purposes of this analysis, an impact is considered to be adverse if it would result in any of the following:

- Substantially disproportionately affect minority or low-income populations

14.2.3 Impacts and Mitigation Measures

Alternative 1—No Action (No Plan Implementation)

As discussed in Chapter 2, Section 2.3.1, *Alternative 1—No Action (No Plan Implementation)*, project proponents would apply for permits on a project-by-project basis, without coordinated effort to minimize biological impacts through the BRCP. Under Alternative 1, urban development and public infrastructure projects would continue to occur pursuant to the approved general plans of the Local Agencies and BCAG's regional plans. These include residential, commercial, and industrial development as well as construction, maintenance, and use of urban infrastructure, parks, recreational facilities, public services, and similar types of urban land uses. Other activities that would occur under Alternative 1 are construction and maintenance of public infrastructure projects outside of urban areas, including public infrastructure projects in and over streams (e.g. bridge replacements). The primary impact mechanism for impacts on population and housing, socioeconomics, and environmental justice under Alternative 1 are implementation of the various general plans and the potential resulting increase in population, changes in tax base and employment, and the potential for disproportionate environmental effects on minority and low-income populations. No regional conservation strategy or conservation measures would be implemented; therefore, benefits to and impacts on population and housing, socioeconomic conditions, and environmental justice associated with implementation of the conservation strategy and conservation measures would not occur.

Impact SOC-1: Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure) (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

As shown in Table 14-2, the Local Agencies expect a population increase between 50% and 150% through 2035. The County and the City of Chico determined that activities associated with implementation of the general plan would result in less-than-significant impacts (City of Chico 2011b; Butte County 2010b), because land use activities associated with the general plan would anticipate and accommodate the population growth. In addition, the levels of population growth anticipated to occur as a result of implementation of the County's general plan would be similar to that anticipated by BCAG in its population projections for the unincorporated portion of the county; consequently, it would be planned for and accommodated by the County General Plan 2030 goals, policies, and actions (Butte County 2010b).

The Cities of Gridley, Biggs, and Oroville determined that activities associated with implementation of their general plans would result in substantial population growth in an area by proposing new homes and businesses (City of Oroville 2009b; City of Gridley 2009; City of Biggs 2013). The EIRs for the Gridley, Biggs, and Oroville general plans concluded that, although implementation of the goals, plans, and policies of each general plan to accommodate and control the growth in each city's plan areas would limit impacts associated with population growth, they would not reduce impacts to a less-than-significant level. The permit term for the proposed action (Alternative 2) would extend past the implementation of the adopted general plans (horizon 2030); consequently, it is anticipated the local jurisdictions would revise their general plans for the period extending after 2030.

NEPA Determination: Under Alternative 1, the Cities of Gridley, Oroville, and Biggs would experience substantial increases in population growth as a result of implementation of the general

plan, and these Cities could not reduce impacts to less-than-significant levels through mitigation or general plan policies; therefore, the effect would be significant and unavoidable.

CEQA Determination: Under Alternative 1, the Cities of Gridley, Oroville, and Biggs concluded that implementation of the general plan goals, policies, and actions could reduce the impacts of population growth, but not to a less-than-significant level. Furthermore, Gridley determined that the purpose of the general plan is to provide a framework for governing future growth of the city's planning area and thus could not propose feasible mitigation to reduce the expected growth. These three local jurisdictions determined that impacts on population growth would be significant and unavoidable. Accordingly, the impact is considered significant and unavoidable.

Impact SOC-2: Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

As shown in Table 14-5, Butte County and the local jurisdictions are expected to experience an increase in housing of 49–150% through 2035. The County and the Cities of Biggs, Chico, and Oroville determined that implementation of their general plans would not result in the displacement of substantial amounts of housing and would generally allow an increase in the total number of housing units (City of Oroville 2009b; City of Chico 2011b; Butte County 2010b; City of Biggs 2013). Overall, these general plans would allow a net increase of housing and include policies and actions that preserve existing neighborhoods. Those general plans that include redevelopment, such as Chico and Oroville, could result in some displaced housing units. However, the proposed redevelopment is in underutilized areas and would be conducted a voluntary fashion such that substantial numbers of existing housing units would not be displaced (City of Oroville 2009b; City of Chico 2011b). The City of Gridley determined that implementation of the general plan would not result in the displacement of existing houses or residences because changes are not proposed that would require the removal or displacement of any existing housing or residences (City of Gridley 2009).

NEPA Determination: Under Alternative 1, implementation of the general plan would result in an increase in housing in undeveloped areas or underutilized areas of the various jurisdictions and that general plan implementation would not result in a substantial displacement of housing. The impact would be less than significant. No mitigation is required.

CEQA Determination: Under Alternative 1, determined that implementation of the general plan would result in an increase in housing in undeveloped areas or underutilized areas of the various jurisdictions and that general plan implementation would not result in a substantial displacement of housing. Accordingly, the impact would be less than significant. No mitigation is required.

Impact SOC-3: Displace a substantial number of people, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

As shown in Table 14-2, Butte County and the local jurisdictions are expecting an increase in population of 50–150% through 2035. The County and the Cities of Biggs, Chico, and Oroville determined that general plan buildout would not result in displacement of a substantial number of people (City of Oroville 2009b; City of Chico 2011b; Butte County 2010b; City of Biggs 2013) because general plan implementation would not entail the removal of existing housing or businesses that would result in the displacement of people. Overall, these general plans would increase housing where it does not presently exist, and would provide opportunities for infill residential and urban

development. The City of Gridley determined that general plan implementation would not result in the removal or displacement of existing residences or housing; therefore, it would not result in displacing a substantial number of people (City of Gridley 2009).

NEPA Determination: Under Alternative 1, the buildout of various general plans would not result in a substantial displacement of people because it would not result in the removal of existing housing and would generally increase housing in undeveloped or underutilized areas of the various jurisdictions. The impact would be less than significant. No mitigation is required.

CEQA Determination: Under Alternative 1, the buildout of various general plans would not result in a substantial displacement of people because it would not result in the removal of existing housing. The impact would be less than significant. No mitigation is required.

Impact SOC-4: Substantially change economic activity in the Plan Area (NEPA: beneficial)

It is anticipated that Alternative 1 would result in an overall projected increase in housing, employment, and income as shown in Tables 14-7 and 14-9 as a consequence of implementation of the general plan. This increase would constitute a beneficial effect on the economic activity resulting from employment and industry within the jurisdictions of the Local Agencies and the Plan Area. While some displacement of farms may result from expansion of urban land uses into agricultural areas, the general projection for the farm sector is expected to result in an increase from 259,000 jobs in 2011 to 281,000 jobs in 2030 (Table 14-7). Thus, it is expected that employment within the county, including the farm sector, would continue to increase.

NEPA Determination: Under Alternative 1, employment and jobs are expected to increase over the next few years and through 2030, including jobs in the farm sector. This would be a beneficial effect.

Impact SOC-5: Substantially affect property tax revenue (NEPA: beneficial)

Property values associated with urban uses are dependent on a wide range of site-specific and broad geographic considerations, such as size and shape of the property, accessibility and visibility, environmental conditions, legal constraints, utilities, zoning and regulation, land supply, and overall economic climate. Covered activities associated with general plan implementation could entail rezoning parcels, introducing new or substantially different uses, and altering or expanding support infrastructure (e.g., water service, transportation facilities) in support of planned development.

Housing in Butte County and the local jurisdictions is projected to increase by 49–150% through 2035. Jobs and employment are also anticipated to increase. The associated increase in urban property uses, the number of businesses, and the expansion of existing businesses are expected to positively contribute to the local tax base through the generation of property tax revenue. Because the County is able to collect more property taxes from urban uses (e.g., residential homes) than from other uses (e.g., agricultural uses) property taxes are expected to increase as urban uses increase. Displacement and overall reduction of farms and agricultural land are expected as urban land uses expand into existing agricultural areas (i.e., a total of approximately 9,000 acres shown in Table 4-7 in Chapter 4, *Agricultural and Forestry Resources*). However, farms typically generate lower levels of property taxes—and taxes in general—than do urban uses. Consequently, it is expected that overall property tax revenues would increase as a result of implementation of the general plan.

NEPA Determination: Under Alternative 1, property tax revenue is expected to increase with implementation of the general plan. This would be a beneficial effect.

**Impact SOC-6: Substantially disproportionately affect minority or low-income populations
(NEPA: significant and unavoidable)**

The following resources, summarized in Table ES-2, were identified to have significant and unavoidable impacts: agricultural resources; air quality; hydrology and water quality; noise; public services and public utilities; recreation and visual resources; and transportation. The significant and unavoidable impacts related to these resources generally result because of the following impact mechanisms.

- Conversion of farmland to nonagricultural land uses as a result of implementation of the general plan in the Local Agencies' jurisdictions.
- Conversion of farmland to nonagricultural uses as a result of other changes in the existing environment in the Local Agencies' jurisdictions.
- Conflicts with applicable air quality plans and violation of air quality standards. Substantial contributions to existing or projected air quality violations as a result of construction emissions the Local Agencies' jurisdictions.
- Exposure of sensitive receptors to substantial pollutant concentrations and a cumulatively considerable net increase of criteria pollutants during construction in the Local Agencies' jurisdictions.
- Create objectionable odors affecting a substantial number of people during construction in the Local Agencies' jurisdictions.
- Generation of greenhouse gases in the Local Agencies' jurisdictions.
- Exposure of people or structures to a significant risk of loss, injury, or death involving flooding as a result of implementation of the general plan in flood zones in the Local Agencies' jurisdictions.
- A substantial permanent increase in ambient noise levels as a result of implementation of the general plan in the Local Agencies' jurisdictions.
- Reduced service ratios or standards for public services and facilities as a result of implementation of the general plan in Gridley.
- Exceedance of wastewater treatment requirements and inadequate capacity by a wastewater treatment provider to serve the projected demand, in addition to the provider's existing commitments, for Gridley.
- Construction of new water or wastewater treatment facilities, stormwater drainage facilities, additional water supplies, or need new landfill services as a result of implementation of the general plan in Gridley.
- Increased use of recreational facilities and a substantial change in visual character and quality, scenic views, and daytime and nighttime glare as a result of implementation of the general plan in Gridley.
- Substantial increases in traffic volumes as a result of regional and local roadways, resulting in exceedance of the capacity of the existing roadway system as a result of implementation of the general plan in the Local Agencies' jurisdictions.

- Safety hazards due to design features, incompatible uses (e.g., hazards to vehicular, pedestrian, and bicycle transit), or inadequate emergency access as a result of implementation of the general plan in Biggs.

As shown in Figure 14-1, minority individuals constitute a meaningfully larger percentage of the population (more than 50%) within and adjacent to Biggs, Gridley, Oroville, and Chico than in the general population. As shown in Figure 14-2, low-income individuals constitute a meaningfully larger percentage of the population (more than 20%) within and adjacent to Oroville and Chico than in the general population. As a result of the significant and unavoidable resource determinations summarized above and the locations of the meaningfully greater populations of minority and low-income persons, it is determined that minority and low-income persons would experience a disproportionately high and adverse effect associated with the impacts listed above.

NEPA Determination: Under Alternative 1, there would be significant and unavoidable impacts on agricultural resources, air quality, hydrology and water quality, noise, public services and public utilities, recreation and visual resources, and transportation and these impacts would occur in locations of the Plan Area with meaningfully larger populations of minority and low-income persons. Therefore, effects on these populations would be disproportionately high, and the impact would be significant and unavoidable.

Alternative 2—Proposed Action

Under Alternative 2, covered activities would include the existing, planned, and proposed land uses over which the Permit Applicants have land use authority; state and local transportation projects; maintenance of water delivery systems (e.g., WCWD canals and similar delivery systems); habitat restoration, enhancement, and management actions (conservation measures); and adaptive management and monitoring activities. Most covered activities would require individual permits and approvals pursuant to the Local Agencies' general plans and land use regulations or the requirements of the implementing agency (such as Caltrans and irrigation districts) and would undergo subsequent project-level CEQA review and relevant NEPA review for construction and operations-related impacts; some covered activities, however, may be exempted from environmental review requirements due to project characteristics, including small projects or infill projects.

It is anticipated that implementation of permanent development projects within the jurisdiction of the Local Agencies would result in the same impacts as those identified in the discussion of Impact SOC-1 through SOC- 6 under Alternative 1 activities associated with implementation of the general plans.

Alternative 2 includes a conservation strategy and conservation measures to preserve and restore habitat in the Plan Area. The exact locations of easements or fee-title acquisition for conservation areas within the Plan Area have not been determined, but an average transaction size of 160 acres to obtain land for the conservation strategy is a general presumption. In most instances, permanent conservation easement acquisitions are preferred, as they allow for continued land use practices in the working landscapes of the county (e.g., farming, ranching, and other land uses) and can be less costly to acquire and maintain than fee-title acquisitions. In some instances, fee-title acquisition will be necessary—for example, in areas where habitat will be restored, conservation lands that require frequent access and intensive habitat management, and instances where landowners are only interested in fee-title sale of the land (Butte County Association of Governments 2015). The

expected total costs for the conservation component or BRCP implementation over the 50-year implementation period are estimated at \$428.1 million. These costs, distributed over the 50-year implementation period, address implementation of conservation actions that contribute to the conservation of natural communities and the conservation and recovery of covered species (see Appendix F of the BRCP).

Impact SOC-1: Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure) (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 1 and are significant and unavoidable.

Implementation of covered activities associated with water and irrigation districts and the conservation strategy is not anticipated to result in substantial population growth because these activities would not facilitate growth in the Plan Area beyond that planned by the Local Agencies. The water and irrigation districts would perform activities that they currently perform to upgrade and maintain their systems. These water and irrigation districts provide water for agricultural uses only and so these activities would only accommodate agricultural production growth in their service areas as needed. The conservation strategy and conservation measures—generally entailing such activities as conservation easements on agricultural lands and active restoration along streams—have no mechanism for inducing population growth. Therefore, impacts associated with these types of covered activities would not result in substantial population growth.

NEPA Determination: While the conservation strategy and conservation measures and the water and irrigation districts' activities would not result in substantial population growth, covered activities associated with implementation of the Gridley, Biggs, and Oroville general plans would result in substantial increases in population growth as identified in Alternative 1; therefore, this impact would be significant and unavoidable.

CEQA Determination: While the conservation strategy and conservation measures and the water and irrigation districts' activities would not result in substantial population growth, covered activities associated with implementation of the Gridley, Biggs, and Oroville general plans would result in substantial increases in population growth as identified in Alternative 1; therefore, this impact would be significant and unavoidable.

Impact SOC-2: Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

Impacts associated with implementation of the general plans would be the same as under Alternative 1. Implementation of covered activities associated with water and irrigation districts and the conservation strategy would have a very low potential to displace any existing housing because they would primarily take place along existing district roads or within existing pipeline rights of ways as described in Chapter 2, *Proposed Action and Alternatives*, and depicted in Figure 2-3 of the BRCP. Implementation of covered activities associated with the conservation strategy and conservation measures would similarly have a very low potential to displace existing housing because they would involve either placing easements on existing agricultural lands or restoring habitat in underutilized areas. Therefore, these activities would not displace a substantial number of existing housing units.

NEPA Determination: Under Alternative 2, housing implemented in the general plans would occur in undeveloped areas or underutilized areas of the various jurisdictions and would not result in a substantial displacement of housing. Furthermore, the other covered activities would have a very low potential to displace existing housing. Accordingly, impacts would be less than significant. No mitigation is required.

CEQA Determination: Under Alternative 2, housing implemented in the general plans would occur in undeveloped areas or underutilized areas of the various jurisdictions and would not result in a substantial displacement of housing and that the other covered activities would have a very low potential to displace housing. Accordingly, the impact would be less than significant. No mitigation is required.

Impact SOC-3: Displace a substantial number of people, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

Impacts associated with general plan buildout would be the same as under Alternative 1. As disclosed in the discussion of Impact SOC-2 under Alternative 2, implementation of covered activities associated with water and irrigation districts and the conservation strategy would have a very low potential to displace housing. Consequently, they are not expected to displace substantial numbers of people.

NEPA Determination: Alternative 2 would not result in substantial displacement of people as a result of general plan buildout. Furthermore, the other covered activities would have a very low potential to displace existing people. Accordingly, the impact would be less than significant. No mitigation is required.

CEQA Determination: Alternative 2 would not result in substantial displacement of people as a result of general plan bailout. And the other covered activities would have a very low potential to displace existing people. Accordingly, the impact would be less than significant. No mitigation is required.

Impact SOC-4: Substantially change economic activity within the Plan Area (NEPA: beneficial)

Impacts associated with implementation of the general plans would be the same as under Alternative 1.

Because the conservation plan and conservation measures are programmatic in nature and do not specify locations of actions, there is a high degree of uncertainty regarding the extent of Alternative 2's effects on economic activity within the Plan Area. However, the process of land development is complex and subject to a wide range of influences, and implementation of the proposed conservation strategy and issuance of take permits would change development conditions, which could in turn affect the overall economic activity in the Plan Area. Issuance of take permits to local authorities would streamline the permit process and clearly define project mitigation requirements for future projects. The streamlined process may allow for quicker completion of projects and greater efficiency in land development. Take authorization under Alternative 2 would be associated with specific costs in the form of fees or land dedications (summarized in Table 8-5, *Summary of BRCP Mitigation Implementation Costs by Cost Category*, and 8-6, *Summary of BRCP Conservation Component Implementation Costs by Cost Category*, of the BRCP).

More displacement of farms and agriculture is likely to occur under Alternative 2 than under Alternative 1 because the covered activities outside the Local Agencies' jurisdictions (conservation

strategy and conservation measures) are anticipated to remove a certain amount of land from agricultural production through conversion to different habitat types. Approximately 3,800 acres of three agricultural communities—rice, irrigated pasture, and irrigated cropland—are expected to be removed in the Plan Area (Table 4-5 of the BRCP). As shown in Table 4-9 in Chapter 4, *Agricultural and Forestry Resources*, 1.3% of the overall amount of rice in the Plan Area, the top crop in the county (Table 14-8) would be affected. When applying the 2010 total production value for rice—\$182,248,000 (Table 14-8)—this decrease in ricelands could result in a potential loss of approximately \$2,369,224. However, the estimated gross value of agricultural production in the county was \$622,414,000 in 2010 (Butte County 2010a); consequently, the potential loss would be equivalent to less than 0.4% of the gross value of the county’s agricultural production. Alternative 2 includes land purchase of conservation easements on agricultural lands that would permit continued agricultural use. The protection target for agricultural lands is approximately 26,000 acres of rice and irrigated pasture and irrigated cropland. Thus, this land would continue to be farmed. Changes in agricultural practices (e.g., use of pesticides or herbicides, schedule of activities) may be required as conditions of the proposed easements, but the conditions would be compatible with maintaining the ongoing economic viability of agricultural use.

NEPA Determination: Alternative 2 is expected to increase employment and jobs in the Plan Area associated with implementation of the general plans and preservation of existing agricultural lands under the conservation strategy would more than compensate for the potential loss of dollars from the reduction of ricelands. This would be a beneficial effect.

Impact SOC-5: Substantially affect property tax revenue (NEPA: beneficial)

Impacts associated with implementation of the general plans would be the same as under Alternative 1.

Land acquisition for the conservation strategy could indirectly affect property tax revenue by influencing a number of land valuation factors. Land acquisition would result in specific restrictions on the use of individual preserve properties. The extent and type of restrictions would be highly variable, depending on the current conditions and use of the property. For example, agricultural lands acquired may continue in agriculture use, but with minor conditions on use to enhance biological values. Restrictions on use of property could be perceived in the marketplace as detrimental to the value of adjacent agricultural properties because of the potential for endangered species relocation onto adjacent agricultural properties. Alternative 2 provides take coverage for adjacent agricultural parcels a half a mile from the reserve edges to prevent impacts on surrounding agricultural practices (see Chapter 6, Section 6.9 of the BRCP for additional information). Other more intensively managed lands—such as commercial or industrial uses—near preserves would not likely be affected to any measurable degree, because these lands offer little habitat value that would attract sensitive species.

Land acquisition under Alternative 2 could affect property tax revenue by removing agricultural lands from production and from County tax rolls. Lands acquired through conservation easement would continue to be taxed as agricultural lands. Land acquired in fee title would be broadly distributed throughout Plan Area and may have a lower tax rate than the same parcels under current conditions. Because Alternative 2 does not specify the amount of fee-title versus easement acquisition and has not yet identified specific parcels for acquisition, a detailed determination of impact on property tax revenue is not feasible. However, the conservation strategy’s priority is to

use conservation easements wherever feasible, thereby keeping the land in production and reducing the amount of land removed from the tax rolls.

In general, agricultural lands provide far less revenue from property taxes on a per-acre basis than urban uses. Agricultural lands tend to have a lower assessed value than urban and commercial land uses. Accordingly, the potential loss in property taxes associated with removal of agricultural lands from the tax rolls through implementation of the conservation strategy would be offset by higher tax rates—and, consequently, revenues—associated with planned urban development actions that are covered activities under Alternative 2.

NEPA Determination: The expected increase in property tax revenue associated with implementation of the general plans under Alternative 2 and the continued revenue from agricultural lands placed under conservation easement are anticipated to offset any potential losses from the removal of agricultural lands from the County's tax rolls through implementation of the conservation strategy and conservation measures. This would be a beneficial effect.

Impact SOC-6: Substantially disproportionately affect minority or low-income populations (NEPA: significant and unavoidable)

The effects associated with implementation of the general plans would be the same as under Alternative 1 and are significant and unavoidable.

Implementation of the conservation strategy and conservation measures was determined to have less-than-significant effects (after mitigation) on air quality, noise and transportation and significant and unavoidable impacts on air quality and agriculture. These conclusions are summarized below.

Agriculture

Implementation of the conservation strategy would result in the direct removal of important agricultural land and conversion of this land to nonagricultural uses. The conservation strategy would preserve approximately 26,000 acres of agricultural land; however, the removal of important agricultural land is considered significant and unavoidable.

Air Quality

Construction-related emissions produced as a result of implementing the conservation strategy and conservation measures would result in impacts on air quality by potentially conflicting with the Northern Sacramento Valley Planning Area 2006 Air Quality Attainment Plan; violating air quality standards; resulting in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard; exposing sensitive receptors to substantial pollutant concentrations; and creating objectionable odors affecting a substantial number of people. These impacts would be considered significant. However, BRCP AMMs, in addition to implementation of Mitigation Measures AQ-1a and AQ-1b, which would implement Butte County Air Quality Management District mitigation measures for construction equipment and fugitive dust, respectively, would reduce these air quality impacts to a less-than-significant level.

Greenhouse gas (GHG) emissions associated with implementing BRCP conservation measures could exceed applicable GHG thresholds and could conflict with GHG reduction planning efforts in the Plan Area. Mitigation Measure AQ-6, which would require the implementation of best construction

practices for minimizing GHG emissions, but not below threshold levels. Therefore, this impact is considered significant and unavoidable.

Noise

Implementation of the conservation strategy and conservation measures would likely result in the generation of noise levels in excess of standards established in local general plans or noise ordinances during construction, and would likely result in a temporary or periodic increase in ambient noise. Mitigation Measure NOI-1, which would employ noise-reducing construction practices during construction and initiate a complaint/response tracking program prior to construction, would reduce this impact.

Transportation

The conservation strategy and conservation measures could result in potential conflicts with transportation plans, programs, and planned projects. Mitigation Measure TRA-3 was incorporated to reduce this impact.

As a result of the impact determinations disclosed in the discussion of Impact SOC-6 under Alternative 1 and the locations of the meaningfully greater populations of minority and low-income persons, it is determined that minority and low-income persons would experience a disproportionately high and adverse effect associated with the impacts listed above.

NEPA Determination: Significant and unavoidable impacts on agricultural resources, air quality, hydrology and water quality, noise, public services and public utilities, recreation and visual resources, and transportation would occur in locations of the Plan Area with meaningfully larger populations of minority and low-income persons. Therefore, effects on these populations would be disproportionately high and adverse. The mitigation measures incorporated for the effects associated with air quality, noise, and transportation would reduce effects associated with implementation of the conservation strategy and conservation measures. However, overall, the impact would be significant and unavoidable to environmental populations.

Alternative 3—Reduced Development/Reduced Fill

Alternative 3 is similar to Alternative 2 except that it uses the various general plan EIR reduced development alternatives as described in Chapter 2, *Proposed Action and Alternatives*, to create a single reduced development footprint. Covered activities under this alternative would be similar to those described in the BRCP but would be limited to the reduced development footprint for a reduced permit term of 30 years. The reduced footprint and reduced land conservation would result in fewer built structures and less ground disturbance.

It is anticipated that under Alternative 3, fewer acres of natural communities would be conserved because reduced development would provide reduced funding for the conservation strategy. However, it is anticipated that the conservation measures would be the same because the reduction of fill would be achieved through the reduced development footprint of the Local Agencies' general plans rather than through modification of the conservation measures. Consequently, the impacts related to implementation of the conservation strategy and conservation measures would be very similar to those described under Alternative 2.

Impact SOC-1: Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure) (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

According to the County's general plan EIR, this impact would be similar to that under the Alternatives 1 and 2: in other words, it would not result in substantial population growth in the County's planning area (Butte County 2010b). The impact would be less than significant. The City of Chico's general plan EIR determined that fewer population impacts would occur under Alternative 3 because less development would occur; however, that alternative is not expected to provide adequate residential or nonresidential development to meet future demands.

The general plan EIRs for the Cities of Gridley, Biggs, and Oroville concluded that population growth predicted under a reduced development alternative would be substantial (City of Oroville 2009b; City of Gridley 2009; City of Biggs 2013). Although population and growth in these cities would be less than that described under Alternative 1, Alternative 3 would still result in a larger buildout potential of residential units than the projections for Gridley's population growth; would still result in substantial growth in Oroville; and could result in growth beyond that anticipated by BCAG's population projections.

Implementation of covered activities outside the Local Agencies' jurisdictions (i.e., water and irrigation districts' activities and the conservation strategy) would result in impacts similar to those under Alternative 2. There is very low potential for these covered activities to result in a substantial population increase because they are not activities that facilitate growth beyond that planned by the Local Agencies.

NEPA Determination: While the conservation strategy and conservation measures and the water and irrigation districts' activities would not result in substantial population growth, covered activities associated with implementation of the Gridley, Oroville, and Biggs general plans would result in substantial increases in population growth as identified in Alternative 1; therefore, this impact would be significant and unavoidable.

CEQA Determination: The conservation strategy and conservation measures and the water and irrigation districts' activities would not result in substantial population growth, covered activities associated with implementation of the Gridley, Oroville, and Biggs general plans would result in substantial increases in population growth as identified in Alternative 1; therefore, the impact would be significant and unavoidable.

Impact SOC-2: Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

Impacts associated with implementation of the general plans would be the same as under Alternative 2. Because implementation of covered activities associated with water and irrigation districts and the conservation strategy would have the same—but slightly reduced—impacts as Alternative 2, this impact would be slightly less than that disclosed for Alternative 2.

NEPA Determination: Construction of housing under Alternative 3 (i.e., their Reduced Development Alternatives) would occur in undeveloped or underutilized areas of the various jurisdictions and would not result in a substantial displacement of housing. Furthermore, the other

covered activities would have a very low potential to displace existing housing. Accordingly, the impact would be less than significant. No mitigation is required.

CEQA Determination: Implementation of the general plans under Alternative 3 (e.g., their Reduced Development Alternatives) would not result in a substantial displacement of housing. Furthermore, the other covered activities would have a very low potential to displace housing. Accordingly, the impact would be less than significant. No mitigation is required.

Impact SOC-3: Displace a substantial number of people, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

Impacts associated with general plan buildout would be the same as under Alternative 1. As disclosed in the discussion of Impact SOC-2 under Alternative 2, implementation of covered activities associated with water and irrigation districts and the conservation strategy would have a very low potential to displace housing. Consequently, they are not expected to displace substantial numbers of people.

NEPA Determination: Substantial displacement of people would not occur as a result of general plan buildout under the Alternative 3. Furthermore, the other covered activities would have a very low potential to displace existing people. Accordingly, the impact would be less than significant. No mitigation is required.

CEQA Determination: Substantial displacement of people would not occur as a result of general plan buildout under Alternative 3 and that the other covered activities would have a very low potential to displace existing people. Accordingly, the impact would be less than significant. No mitigation is required.

Impact SOC-4: Substantially change economic activity within the Plan Area (NEPA: beneficial)

It is anticipated that Alternative 3 would result in a lesser benefit to economic activities in the Plan Area than described in Tables 14-2 and 14-7 because the covered activities within the Local Agencies' jurisdictions would be reduced. While development would still occur, it would be more highly concentrated and limited to certain areas. Consequently, Alternative 3 is anticipated to result in fewer positive effects on employment and businesses than Alternative 2.

The effects associated with implementation of the conservation strategy and conservation measures would be similar to those under Alternative 2, but would be reduced. Because the conservation plan and conservation measures are programmatic in nature and do not specify locations of actions, there is a high degree of uncertainty regarding the extent of Alternative 3's effects on economic activity in the Plan Area. It is anticipated that reduced development would lead to a decreased extent of conservation because of reduced development fees would be available to support habitat preservation and restoration, and because the lesser extent of impacts associated with development would require less mitigation.

Alternative 3 would likely result in less displacement of farms and agriculture than Alternative 2 because the conservation strategy would conserve fewer acres and fewer acres would be removed by urban development. Approximately 1,876 acres of three agricultural communities—rice, irrigated pasture and irrigated crop land—are expected to be removed in the Plan Area under this alternative. Approximately 1% of the overall amount of rice in the Plan Area, the top crop in the county (Table 14-8), would be affected. When applying the 2010 total production value for rice—\$182,248,000 (Table 14-8)—this could result in a potential loss of approximately \$1,822,480.

However, the estimated gross value of agricultural production in the county was \$622,414,000 in 2010 (Butte County 2010a); consequently, the potential loss would be equivalent to less than 0.3% of the gross value of the county's agricultural production.

NEPA Determination: The expected increase in employment and jobs in the Plan Area associated with general plan implementation under Alternative 3 and preservation of existing agricultural lands under the conservation strategy would more than compensate for the potential loss of dollars from the reduction of ricelands. This would be a beneficial effect.

Impact SOC-5: Substantially affect property tax revenue (NEPA: beneficial)

Impacts associated with general plan implementation under the Reduced Development Alternatives would be less than those under Alternative 2 because the extent of development would be reduced, thereby generating reduced revenues.

The reduction of conserved lands associated with the reduction of urban development would have a minimal effect on tax revenues because lands currently in agricultural production would continue to generate tax revenue. Because Alternative 2 does not specify the amount of fee-title versus easement acquisition and has not yet identified specific parcels for acquisition, a detailed determination of impact on property tax revenue is not feasible. However, the conservation strategy's priority is to use conservation easements wherever feasible, thereby keeping the land in production and reducing the amount of land removed from the tax rolls.

Although both development and conservation would be reduced under this alternative, it is anticipated that the potential loss in property taxes associated with removal of agricultural lands from the tax rolls through implementation of the conservation strategy would be offset by higher tax rates—and, consequently, revenues—associated with planned urban development actions that are covered activities under Alternative 2.

NEPA Determination: Although Alternative 3 would result in a lesser increase in property tax revenue associated with general plan implementation under the Reduced Development Alternatives than would Alternative 2, it would still result in an overall increase above baseline. This would be a beneficial effect.

Impact SOC-6: Substantially disproportionately affect minority or low-income populations (NEPA: significant and unavoidable)

The effects associated with general plan implementation under the Alternative 3 would be similar to but less than those under Alternative 1 because less development is expected. The effects associated with the conservation strategy under the Alternative 3 would be similar to but less than those under Alternative 2 because there would likely be fewer conservation lands.

NEPA Determination: Significant and unavoidable impacts on agricultural resources, air quality, hydrology and water quality, noise, public services and public utilities, recreation and visual resources, and transportation would occur in locations of the Plan Area with meaningfully larger populations of minority and low-income persons. Therefore, effects on these populations would be disproportionately high and adverse. The mitigation measures incorporated for the effects associated with air quality, noise, and transportation would reduce effects associated with implementation of the conservation strategy and conservation measures. However, overall, the impact would be significant and unavoidable.

Alternative 4—Greater Conservation

Alternative 4 would be similar to Alternative 2 except that under Alternative 4, the conservation strategy would include the conservation of an additional 9,850 acres of grassland and 35,310 acres of riceland. Alternative 4 would include the same conservation measures as Alternative 2, and all other acreage protection targets for natural communities/land types would be the same as described under Alternative 2. The covered activities associated with water and irrigation districts and transportation projects would be the same under Alternative 4 as under Alternative 2. Therefore, impact mechanisms for population, socioeconomics, and environmental justice would be similar to those described for Alternative 2.

Impact SOC-1: Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure) (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Impacts associated with implementation of the general plans would be the same as under Alternative 2. The increase in conserved rielands and grasslands under Alternative 4 would have a low potential to cause substantial population growth because the conservation would primarily place conservation easements on existing agricultural lands or restore habitat in underutilized areas.

NEPA Determination: While the conservation strategy and conservation measures and the water and irrigation districts' activities would not result in substantial population growth, covered activities associated with implementation of the Gridley, Oroville, and Biggs general plans would result in substantial increases in population growth as identified in Alternative 2; therefore, this impact would be significant and unavoidable.

CEQA Determination: While the conservation strategy and conservation measures and the water and irrigation districts' activities would not result in substantial population growth, covered activities associated with implementation of the Gridley, Oroville, and Biggs general plans would result in substantial increases in population growth as identified in Alternative 2; therefore, this impact would be significant and unavoidable.

Impact SOC-2: Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

The increase in rielands and grasslands under Alternative 4 when compared to Alternative 2 is not anticipated to result in the demolition of existing housing. This is because conservation would primarily place conservation easements on existing agricultural lands or restore habitat in underutilized areas. These activities would not result in the demolition of substantial number of existing housing units because the land is already in agricultural production where few to no houses are located. Impacts of covered activities resulting from implementation of the general plans of the Local Jurisdictions would be the same as under Alternative 2, as described in the discussion of the Impact SOC-2 for Alternative 2.

NEPA Determination: Implementation of general plans under Alternative 4 would occur in undeveloped areas or underutilized areas of the various jurisdictions and would not result in a substantial displacement of housing. Furthermore, the other covered activities would have a very

low potential to displace existing housing. Accordingly, there the impact would be less than significant. No mitigation is required.

CEQA Determination: Implementation of the general plans under Alternative 4 would not result in a substantial displacement of housing and that the other covered activities would have a very low potential to displace housing. Accordingly, the impact would be less than significant. No mitigation is required.

Impact SOC-3: Displace a substantial number of people, necessitating the construction of replacement housing elsewhere (NEPA: less than significant; CEQA: less than significant)

Impacts associated with general plan buildout would be the same as under Alternative 1. As disclosed in the discussion of Impact SOC-2 under Alternative 2, implementation of covered activities associated with water and irrigation districts and the conservation strategy would have a very low potential to displace housing. Consequently, they are not expected to displace substantial numbers of people.

NEPA Determination: Under Alternative 4 substantial displacement of people would not occur as a result of general plan buildout. Furthermore, the other covered activities would have a very low potential to displace existing people. Accordingly, impacts would be less than significant. No mitigation is required.

CEQA Determination: Under Alternative 4 substantial displacement of people would not occur as a result of general plan buildout. Furthermore, the other covered activities would have a very low potential to displace existing people. Accordingly, the impact would be less than significant. No mitigation is required.

Impact SOC-4: Substantially change economic activity within the Plan Area (NEPA: beneficial)

Impacts associated with implementation of the general plans would be the same as under Alternative 2. The projected increase in housing, employment, and income would be a beneficial effect. Impacts associated with implementation of covered activities outside the Local Agencies' jurisdiction would be similar to those under Alternative 2. However, less displacement of farms and agriculture is likely to occur under Alternative 4 than under Alternative 2 because the conservation strategy would protect more acres of ricelands. It is anticipated the potential loss of ricelands would be less than anticipated under Alternatives 2 and 3. Moreover, Alternative 4 would entail increased land acquisition through conservation easements on agricultural lands that would ensure continued agricultural use. The conservation target of 35,300 additional acres of ricelands would aim to maintain production on these lands.

NEPA Determination: The expected increase in employment and jobs in the Plan Area associated with implementation of the general plans under Alternative 4 and preservation of existing agricultural lands under the conservation strategy would more than compensate for the potential loss of dollars from the loss of agricultural production, which would be less than that under Alternative 2. This effect would be beneficial.

Impact SOC-5: Substantially affect property tax revenue (NEPA: beneficial)

Impacts associated with implementation of the general plans would be the same as under Alternative 2. Impacts associated with implementation of the conservation strategy and conservation measures would be similar to those under Alternative 2. However, the targeted

protection of an additional 35,300 acres of ricelands is anticipated increase tax revenues generated by those lands compared to revenues under Alternative 2.

NEPA Determination: The expected increase in property tax revenue associated with implementation of the general plans and the continued revenue from agricultural lands placed under conservation easement under Alternative 4 are anticipated to offset any potential losses from the removal of agricultural lands from the County's tax rolls through implementation of the conservation strategy and conservation measures. This effect would be beneficial.

Impact SOC-6: Substantially disproportionately affect minority or low-income populations (NEPA: significant and unavoidable)

The effects associated with implementation of the general plans would be the same as under Alternative 2 and implementation of the conservation strategy and conservation measures would be the same as under Alternative 2. Significant and unavoidable impacts on agricultural resources, air quality, hydrology and water quality, noise, public services and public utilities, recreation and visual resources, and transportation would occur in locations of the Plan Area with meaningfully larger populations of minority and low-income persons. The mitigation measures incorporated for the effects associated with air quality, noise, and transportation would reduce effects associated with implementation of the conservation strategy and conservation measures. However, overall, the effects on these populations would be disproportionately high and adverse.

NEPA Determination: As with Alternative 2, the effects on populations of minority and low-income persons would be disproportionately high, and the impact would be significant and unavoidable under Alternative 4.

14.2.4 Cumulative Analysis

Methods and Approach

The cumulative analysis for population and housing, socioeconomics, and environmental justice is a qualitative evaluation using the past, present, and reasonably foreseeable future projects listed in Chapter 3, Section 3.3.2, under *Cumulative Impacts*. This analysis considered agricultural, urban development, and water supply development projects, including roadway projects; the general plan EIR impact determinations for cumulative impacts, where applicable; and the impact determinations identified above for the various alternatives.

This analysis determines whether the covered activities not analyzed in previous environmental documents (e.g., those activities not considered in the general plan EIRs) would result in cumulatively considerable incremental contribution that, when combined with the past, present, and reasonably foreseeable future projects, would result in a cumulatively significant impact.

Cumulative Impacts

Past, present, and reasonably foreseeable future projects are identified in Chapter 3, Section 3.3.2, under *Cumulative Impacts*. Past and present projects have resulted in an overall increase in population and housing in the Plan Area. Flood control activities have reclaimed land that can be developed for urban uses, and water supply projects have been developed to provide urban infrastructure with water. These projects have provided a beneficial cumulative effect on population

and housing by supporting and providing housing and development necessary for a growing population.

Past and present projects have also resulted in an overall growing market of employment and jobs in the Plan Area, providing a beneficial cumulative effect on socioeconomics. While agricultural resources in the Plan Area are experiencing a decline, the industry provides employment and is anticipated to continue doing so with future water supply infrastructure and irrigation efficiency projects.

There is a potential for disproportionate effects on minority and low-income populations to occur in the Plan Area as a result of past and present projects in the vicinity of the concentration of minority and low-income populations (Figures 14-1 and 14-2). It is surmised that some disproportionate effects on environmental justice populations have occurred because of the concentration of such populations in the Plan Area.

Alternative 1—No Action (No Plan Implementation)

Population and Housing

The Cities of Gridley, Oroville, and Biggs determined that cumulatively considerable and significant impacts on population and housing would result from implementation of their general plans. Consequently, past, present, and reasonably foreseeable future projects—including implementation of the general plans—would result in cumulatively considerable and significant impacts. Accordingly, Alternative 1 would result in an incremental contribution to cumulative impacts.

Socioeconomics

It is anticipated that implementation of the general plans would result in an overall increase in market activities as a result of urban development and would not substantially reduce expected agricultural production in the Plan Area, given the projections presented in Table 4-7. Accordingly, Alternative 1 would not result in an incremental contribution to cumulative socioeconomic effects.

Environmental Justice

It is anticipated that implementation of the general plans would result in overall disproportionate effects on environmental justice populations. Specifically, Alternative 1 would result in disproportionate effects as a result of significant and unavoidable impacts on agricultural resources, air quality, hydrology and water quality, noise, public services and public utilities, recreation and visual resources, and transportation. While mitigation measures are available to reduce some of these effects as discussed in the impact analyses, the effect would remain disproportionate. Accordingly Alternative 1 would result in an incremental contribution to cumulative environmental justice impacts.

Alternative 2—Proposed Action

Population and Housing

The Cities of Gridley, Oroville, and Biggs determined that cumulatively considerable and significant impacts on population and housing would result from implementation of their general plans, which is included in the covered activities. Accordingly, past, present, and reasonably foreseeable future projects—including general plan buildout—would result in cumulatively considerable and

significant impacts on population and housing. The covered activities associated with implementation of the conservation strategy and conservation measures would not result in a substantial increase in population or displace housing because these activities have a very low potential to affect population growth or housing. Overall, Alternative 2 would result in an incremental contribution to cumulative population and housing impacts.

Socioeconomics

It is anticipated that implementation of the general plans would result in an overall increase in market activities as a result of urban development. While the conservation strategy might result in a reduction of employment opportunities and tax base, the covered activities associated with implementation of the general plans would offset any potential reduction. Therefore, Alternative 2 would not result in an incremental contribution to cumulative socioeconomic effects.

Environmental Justice

It is anticipated that implementation of the general plans would result in overall disproportionate effects on environmental justice populations. Specifically, Alternative 2, like Alternative 1, would result in disproportionate effects as a result of significant and unavoidable impacts on agricultural resources, air quality, hydrology and water quality, noise, public services and public utilities, recreation and visual resources, and transportation. While mitigation measures are available to reduce some of these effects as discussed in the impact analyses, the effect would remain disproportionate. Accordingly, the Alternative 2 would result in an incremental contribution to cumulative environmental justice impacts.

Alternative 3—Reduced Development/Reduced Fill and Alternative 4—Greater Conservation

Although the extent of impacts on population and housing, socioeconomics, and environmental justice associated with implementation of the conservation strategy and conservation measures varies slightly between these alternatives, the mechanism and implications are the same as under Alternative 2. Both alternatives would result in a cumulatively considerable contribution to cumulative impacts on population and housing and environmental justice. Neither Alternative 3 nor Alternative 4 would result in a cumulatively considerable contribution to cumulative impacts on socioeconomics.

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15.1 Affected Environment

This section provides an overview of relevant transportation regulations and the existing transportation systems in the Plan Area.

15.1.1 Regulatory Setting

Federal

No directly relevant federal regulations have been identified.

State

Caltrans Route Concept Reports

Caltrans has completed transportation or route concept reports for State Route (SR) 32, 70, 99, 149, 162, and 191. These reports identify long-range improvements and establish the *concept*, or desired, level of service (LOS) for specific corridor segments. These reports identify long-range improvements needed to bring an existing facility up to standards anticipated to adequately serve 20-year traffic forecasts. Additionally, the reports identify the ultimate design concept for conditions beyond the immediate 20-year design period. An overview of each route concept report is provided in pages 4.13-3 through 4.13-6 of the County general plan EIR (Butte County 2010); these overviews are hereby incorporated by reference.

Local

Butte County Association of Governments

Metropolitan Transportation Plan

BCAG adopted the MTP for Butte County in December 2012 (Butte County Association of Governments 2012). The MTP specifies the policies, projects, and programs necessary to maintain, manage, and improve the region's transportation system. The Butte County 2012 MTP covers the 23-year period between 2012 and 2035, and it is required to be updated every 4 years. The MTP includes an Air Quality Conformity Analysis and Determination, as well as a Program EIR. The MTP provides a comprehensive long-range view of transportation needs and opportunities for the county. It establishes goals and objectives for the future system. BCAG transportation projects within and outside the UPAs were included in the MTP and the EIR that evaluates the environmental impacts of the MTP. In addition, Caltrans projects outside the UPAs related to SR 70 capacity improvements and SR 99 capacity improvements are identified in Chapter 6, *Highways and Local Streets and Roads*, of the MTP. The funded SR 70 capacity improvement projects include construction of passing lanes from Ophir Road to Palermo Road, from Palermo Road to East Gridley Road, and from East Gridley Road to the Yuba County line in the next 23 years. The funded SR 99

capacity improvement projects include construction of auxiliary lanes, Eaton Road/SR 99 interchange improvements, SR 99/East Avenue interchange improvements, and SR 99/Southgate interchange improvement in Chico by 2035. The unfunded improvements on SR 70 and SR 99 include SR 99 corridor projects, SR 99 passing lane projects between Gridley and the junction at SR 149, SR 99–Neal Road interchange improvements, SR 70–Ophir Road interchange improvements, and SR 70–Georgia Pacific interchange improvements.

Regional Transportation Improvement Program

As the designated Regional Transportation Planning Agency (RTPA) serving the incorporated cities of Biggs, Chico, Gridley, Oroville; the town of Paradise; and the county, BCAG is charged with the responsibility of preparing the RTIP.

The 2014 RTIP (Butte County Association of Governments 2013) covers the 5 fiscal years from 2014/15 through 2018/19. The purpose of the RTIP is to identify project recommendations for the Regional Improvement Program (RIP) funds made available to BCAG as provided by the State Transportation Improvement Program (STIP) process. The RTIP project recommendations are then subject to approval by the California Transportation Commission for inclusion into the STIP.

SR 70 passing lane projects from Ophir Road to Palermo Road and from Palermo Road to East Gridley Road are included in the 2014 RTIP.

Coordinated Public Transit and Human Services Transportation Plan

BCAG produced a Coordinated Public Transit–Human Services Transportation Plan for Butte County in 2008. This plan identifies existing public transit services in the county, unmet transit needs, and recommendations for providing future services. The plan specifically identifies and prioritizes projects eligible for federal funding to address transportation needs of persons of low income, persons with disabilities, and seniors.

Butte County

General Plan

The Circulation Element of the County’s General Plan 2030 (Butte County 2012) is concerned with the safe and efficient movement of people and goods in and around the county. To ensure that the county’s transportation system can accommodate growth anticipated during the 20-year planning period, the Circulation Element works closely with the Land Use Element. The Circulation Element sets forth goals and policies describing the overall mobility program for the county. The following policies regarding transportation and circulation are applicable to the Plan Area.

- Regional land use and transportation planning (policies 1.1 through 1.3, 3.4, 3.5, 3.7, 3.8, 7.1 through 7.3, 8.1 through 8.3, 9.1, 11.1, and 11.2).
- Provisions for bicycles and pedestrians (policies 3.1 through 3.3, 3.6, 5.1 through 5.5, 9.2, 10.1, and 10.2).
- Level of service standards (LOS C for County roadways and concept LOS for Caltrans facilities) and mitigation of traffic impacts (policies 6.1 through 6.6).

Bicycle Plan

The purpose of the *Butte County Bicycle Plan* (Butte County 2011) is to encourage use of bicycling as a sensible, non-polluting, healthy, and affordable mode of transportation and recreation in the unincorporated County areas through the provision of feasible improvements that promote interconnectivity between similar facilities in local communities, parks, and other recreational areas within the county.

The plan provides maps showing planned future bikeway facilities in the unincorporated County areas, as well as connectivity to existing and proposed bikeway facilities within the municipal jurisdictions.

Incorporated Municipalities

The Plan area includes four incorporated municipalities: Biggs, Chico, Gridley, and Oroville. The roadway capacity level of service policies adopted by each of these jurisdictions guides what is considered to be acceptable operations on local roadways in their jurisdictional boundaries and respective SOIs.

City of Biggs General Plan

The Circulation Element (City of Biggs 2014a) describes the full range of transportation systems in the City of Biggs and its planning area. The goals, policies, and actions established in the element guide development of the City's circulation system, including roadways and transit, bicycle, and pedestrian facilities and services. The following policies regarding transportation and circulation are applicable to the Plan Area.

- Regional land use and transportation planning (policies 1.1 through 1.4, 1.9, 2.2, and 4.3).
- Provisions for bicycles and pedestrians (policies 4.1, 4.2, and 4.4).
- Level of service standards (LOS C on all City roadways and intersections and D or better during peak travel times) and mitigation of traffic impacts (policies 1.3, 1.5, 1.6, and 2.1).

City of Chico General Plan

The Circulation Element (City of Chico 2011a) establishes a multimodal transportation network that accommodates vehicles, transit, bicycles, and pedestrians. This network is intended to enhance mobility for the entire community. The following regarding transportation and circulation are applicable to the Plan Area.

- Regional land use and transportation planning (policies 1.1, 1.8, 2.1, and 2.2).
- Provisions for bicycles and pedestrians (policies 3.3 through 3.5, 4.2, and 4.3).
- Level of service standards (LOS D for most roadways and intersections at the peak PM period and concept LOS for Caltrans facilities) and mitigation of traffic impacts (policies 1.2 through 1.4).

City of Gridley General Plan

The Circulation Element (City of Gridley 2010) addresses the movement of people, goods, resources, and services in the Gridley planning area. The following policies regarding transportation and circulation are applicable to the Plan Area.

- Regional land use and transportation planning (policies 4.1 through 4.3, 5.10 through 5.13).
- Provisions for bicycles and pedestrians (policies 2.3 through 2.5, 4.4, and 5.7).
- Level of service standards (LOS D for city roadways and intersections and concept LOS for Caltrans facilities) and mitigation of traffic impacts (policies 1.5, 1.8 through 1.9).

City of Oroville General Plan

The Circulation Element (City of Oroville 2009a) accounts for the critical link between land use patterns and transportation. It has been developed in close correlation with the Land Use Element to ensure that the circulation system will be adequate to serve Oroville's existing and future land uses. The following policies regarding transportation and circulation are applicable to the Plan Area.

- Regional land use and transportation planning (policies 1.1 through 1.6, 2.2, 2.3, 6.10 and 7.7).
- Provisions for bicycles and pedestrians (policies 6.1, 6.2, 6.4, 6.8, and 7.1).
- Level of service standards (LOS D for most city roadways and intersections and concept LOS for Caltrans facilities) and mitigation of traffic impacts (policies 2.1 and 3.4).

15.1.2 Environmental Setting

This section provides an overview of the existing transportation system in the Plan Area, comprising roadways, nonmotorized (pedestrian and bicycle) facilities, public transit services, and airports. The circulation elements of the Local Agencies' general plans provide detailed descriptions of existing transportation conditions and planned transportation improvements and are incorporated by reference in the sections detailed below.

Roadway System

Existing Roadway System

The County is not served regionally by an interstate freeway. State highways in the county are operated by Caltrans and are conventional highways, with the exception of several segments of SR 70 and SR 99 in the Chico and Oroville areas that are designated as freeways.

The Plan Area is served by four major highways. SR 99 travels north-south, connecting the county with Yuba City and Sacramento to the south and Red Bluff to the northwest. SR 70 splits from SR 99 south of Marysville, runs north to Oroville, and continues northeast toward Quincy. SR 149 connects SR 99 and SR 70 and provides a connection between Chico and Oroville. SR 162 is a mainly east-west highway that connects southern Butte County, including Oroville, with Interstate 5 (I-5) in Glenn County. Figure 1-1 shows the major state routes in the Plan Area.

Existing Traffic Conditions

Traffic operating conditions on major roadway facilities in the county were evaluated on pages 4.13-1 through 4.13-23 of the County general plan EIR (Butte County 2010). Facilities were selected for analysis either because they were believed to carry relatively high volumes or because they provide an important connection to populated areas or major county resources. The traffic operations are described in terms of LOS, a scale used to determine the operating quality of a roadway segment or intersection based on volume-to-capacity (V/C) ratio or average delay experienced by vehicles on

the facility. The levels range from A to F, with LOS A representing free traffic flow and LOS F representing severe traffic congestion.

The LOS was calculated for key roadway segments to evaluate the quality of traffic conditions on the major roadway facilities in the county. Table 4.13-4 of the County general plan EIR summarizes the existing LOS on the key roadway segments as well as the jurisdictions establishing the LOS policy for the facilities. The following major roadway segments in the Plan Area were found to operate unacceptably during the PM peak hour in 2006 based on the LOS standard established by the applicable state, county, or incorporated municipal jurisdiction.

- SR 32 between East Avenue and West 1st Street (in Chico)—LOS F.
- SR 70 from Montgomery Avenue to Grand Avenue (in Oroville)—LOS E.
- SR 162 from Olive Highway to Lower Wyandotte Road (in Oroville)—LOS F.
- The Skyway from SR 99 to Notre Dame Boulevard (in Chico)—LOS F.

Bicycle and Pedestrian Facilities

The bicycle and pedestrian transportation system in the Plan Area consists of local and regional bikeways and trails; these facilities are defined below.

- Class I bike paths are designated for exclusive use by both bicyclists and pedestrians, and are separated from, but often adjacent to, roadways.
- Class II bike lanes usually consist of one-way lanes adjacent to the traffic lane on either side of the roadway, separated from the motor vehicle lane by a painted white stripe and designated with signs and permanent pavement markings. These facilities are intended for the exclusive use of bicyclists. However, in rural areas, bike lanes are located on the roadway shoulder, which is also utilized by pedestrians.
- Class III bike routes may be located on roadway facilities with sufficient width for shared motor vehicle and bicycle use and are usually only designated by signs indicating the route and shared use.

In the Chico urban area, the County currently has an existing Class I bike path on the eastern side of the Midway extending from the Chico city limits on East Park Ave south to Jones Avenue. Within the Chico urban area, there are also existing Class I bike paths, Class II bike lanes and Class III bike routes that connect facilities within Chico city limits and continue into the County's jurisdiction.

In the greater Oroville area, County bicycle facilities include a Class I bike path adjacent to Palermo Road from Lincoln Boulevard to Palermo-Honcut Highway and a Class II bike lane on Lincoln Boulevard from Oroville city limits south to Monte Vista Avenue. Within the Oroville urban area, there are also existing Class I bike paths, Class II bike lanes, and Class III bike routes that connect facilities within Oroville city limits and continue into the County's jurisdiction.

In the Durham area south of Chico, a Class II bike lane facility runs along Durham-Pentz Highway from the Midway east to Lott Road. In the other portions of the county, existing urban bikeway facilities typically fall under the jurisdiction of the Cities of Biggs and Gridley or the Town of Paradise.

The *Butte County Bicycle Plan* (Butte County 2011) identifies planned future bikeway facilities in unincorporated county areas. The bikeway facilities in the unincorporated areas of the county are

typically planned to interface with facilities planned by the local jurisdictions. The proposed bikeway system was designed to provide the most practical routes and facilities, where possible, along with already identifiable recreational routes frequented by more avid bicyclists in the county.

Public Transit Service

Public transit services in the Plan Area consist of public buses, paratransit, private motorcoach operators, and passenger rail service. Butte Regional Transit (B-Line) is administered by BCAG and provides fixed route bus and paratransit services to Chico, Oroville, Paradise, Gridley, Biggs, and the unincorporated county. Additional public bus services include Glenn Ride, which provides services from Chico to Glenn County, and Plumas Transit, which provides weekly service between Chico and Quincy. For seniors and disabled individuals, there are also a number of service providers and social service agencies that provide door-to-door service. Greyhound Lines provides the scheduled motorcoach service to and from the Butte County area.

Intercity passenger rail service is provided by Amtrak. Amtrak operates the Coast Starlight train originating in Seattle with major stops in Portland, Eugene, Sacramento, and Oakland and terminating in Los Angeles. Trains operate daily through the Chico Amtrak station.

Airport

Air transportation in the county is accommodated by a number of private and public airfields and heliports serving general aviation and agricultural users. Most of these are small fields for private use. Commercial flights to distant or out-of state destinations are available at Sacramento International Airport, about 60 miles south of Oroville.

The major aviation facilities in the Plan Area are the Chico Municipal Airport, the Oroville Municipal Airport, and the Ranchoero Airport. The Chico Municipal Airport is the county's largest airport, serving one commercial airline as well as private and public agency aviation. The Oroville Municipal Airport is the second largest airport, serving the south county areas. The Ranchoero Airport is privately owned and operated.

15.2 Environmental Consequences

This section incorporates by reference the impact determinations presented for transportation in the Local Agencies' general plan EIRs (as described in more detail in Chapter 3, Section 3.3, *Resource Chapter Organization and NEPA/CEQA Requirements*).¹ The significance findings and mitigation measures of each of the general plan EIRs are compiled in Appendix C. The Lead Agencies have reviewed these analyses and found them to be appropriate for the purposes of this EIS/EIR.

15.2.1 Methods for Impact Analysis

Transportation impacts are usually evaluated in terms of temporary impacts (i.e., during construction) and permanent impacts (i.e., changes in traffic as a result of land use changes).

¹ These previous CEQA documents are available collectively for public review at the BCAG offices (2580 Sierra Sunrise Terrace, Suite 100 Chico, CA 95928-8441). Individual general plans and EIRs are also available at each of the respective land use agencies.

Potential impacts were assessed by reviewing the local standards and general plans, and by contacting local agencies.

The BRCP would not provide individual project approvals or entitlements for any private or public development or infrastructure projects. Accordingly, this EIS/EIR does not provide CEQA or NEPA coverage for individual covered activities and does not function as a *programmatic* or *umbrella* CEQA or NEPA document for regional development and infrastructure projects. The BRCP EIS/EIR evaluates only the adverse and beneficial environmental effects associated with the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. Accordingly, the methods for analyzing direct impacts on transportation are tailored to evaluate the decisions of the Local Agencies, water and irrigation districts, and Caltrans to approve, permit, and implement the BRCP. This EIS/EIR also incorporates the impact determinations of the Local Agencies' general plan EIRs to analyze indirect impacts on transportation.

It is assumed that all covered activities approved by the Local Agencies would be consistent with the policies of their respective general plans and would be subject to any mitigation measures identified such that impacts would be adequately mitigated to the extent identified in the general plan EIRs. Water and irrigation district activities have not been analyzed in previous CEQA documents. These activities include: rerouting of existing canals, replacement of water delivery structures, replacement of large weirs, mowing and trimming vegetation along service roads, and removing aquatic vegetation from canals. Potential impacts on transportation could occur primarily during construction or maintenance of these activities.

The methodology for evaluating impacts on traffic and transportation resources also incorporates standard best management practices (BMPs) required by Caltrans during construction of transportation projects and summarized in Appendix D. The analysis assumes that Caltrans would incorporate these BMPs where appropriate on transportation projects within the Plan Area.

15.2.2 Significance Criteria

In accordance with Appendix G of the State CEQA Guidelines, the action alternatives would be considered to have a significant effect if they would result in any of the conditions listed below.

- A substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system.
- Safety hazards due to design features, incompatible uses (e.g., hazards to vehicular, pedestrian, and bicycle transit), or inadequate emergency access.
- Conflict with adopted transportation plans, programs, or projects.

15.2.3 Impacts and Mitigation Measures

Alternative 1—No Action (No Plan Implementation)

As discussed in Chapter 2, Section 2.3.1, *Alternative 1—No Action (No Plan Implementation)*, under Alternative 1, project proponents would apply for permits on a project-by-project basis, without a coordinated and comprehensive effort to minimize and mitigate biological impacts through the BRCP. Under the Alternative 1, urban development and public infrastructure projects would continue to occur pursuant to the approved general plans of the Local Agencies and BCAG's regional plan(s). No regional conservation strategy or conservation measures would be implemented;

therefore, benefits to and impacts on transportation associated with the conservation strategy and conservation measures would not occur.

However, activities such as land development and associated infrastructure development, operation, and maintenance as established in the Local Agencies' general plans would introduce new vehicles onto the regional and local roadway system. Impacts on the regional and local transportation system have been anticipated as part of regional transportation planning efforts, which take into account population growth consistent with local general plans. Impacts on local roadways from individual development projects would be addressed by local studies (e.g., CEQA review). Regional projects developed by BCAG and the Local Agencies are expected to implement mitigation for these traffic impacts. Mitigation to reduce traffic impacts will also be implemented in association with local projects implemented by developers—either by the developers or by the municipalities using development impact fees.

Because Alternative 1 would incorporate the land developments and infrastructure projects adopted in the local general plans and transportation plans (including the 2012 MTP and the 2014 RTIP), the impacts of this alternative on transportation and circulation are those that have been evaluated in the general plan EIRs of the various jurisdictions in the Plan Area.

Impact TRA-1: A substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The Local Agencies' general plan EIRs concluded that land development through implementation of the general plans would result in a substantial increase in traffic volumes on regional and local roadways, resulting in exceedance of the capacity of the existing roadway system. The County (Butte County 2010) determined that implementation of the County General Plan 2030 would result in traffic operation impacts on major roadway facilities that would remain significant after implementation of plan policies and the adoption of identified mitigation measures. The City of Chico (2011b) determined that implementation of its general plan would result in significant and unavoidable impacts on state facilities within the city limits; no additional mitigation measures are identified in the EIR. The City of Gridley (2009) determined that implementation of its general plan would result in traffic operation impacts on local and state facilities that would remain significant after implementation of plan policies and the adoption of identified mitigation measures. The City of Oroville (2009b) determined that implementation of its general plan would result in significant and unavoidable impacts on state facilities within the city limits; no additional mitigation measures are identified in the EIR. The City of Biggs (2014b) determined that implementation of its general plan would result in significant and unavoidable traffic operation impacts on local and state facilities and that no mitigation would reduce this impact (City of Biggs 2014b). The construction of state road projects within these jurisdictions would need to comply with Caltrans requirements and BMPs summarized in Appendix D; however, compliance would not likely reduce the significant and unavoidable impacts associated with the implementation of the general plans because the substantial increase in traffic is associated with the expected land development and population increase.

Short-term traffic impacts could result from construction-related activities associated with water and irrigation district construction and recurring maintenance. Such activities would likely include grading and fill operations and construction of drainage infrastructure, requiring the movement of heavy equipment on roadways during limited construction periods. The number of vehicle trips

generated by these activities is expected to entail traffic volumes similar to those associated with current maintenance activities. Furthermore, construction projects would be located in areas with little traffic. Consequently, they would not result in a significant increase in traffic. Long-term traffic impacts associated with water and irrigation district activities could result from monitoring and recurring maintenance and is anticipated to use existing employees of the water and irrigation districts and thus not result in a substantial increase in traffic.

NEPA Determination: Alternative 1 would result in a substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system as a result of implementation of the general plans. Traffic operation impacts on major roadway facilities, traffic operation impacts on local and state facilities, and impacts on state facilities within city limits would remain significant after implementation of plan policies and the adoption of identified mitigation measures in general plan EIRs, where applicable. This impact would be significant and unavoidable.

CEQA Determination: Alternative 1 would result in a substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system as a result of implementation of the general plans. Traffic operation impacts on major roadway facilities, traffic operation impacts on local and state facilities, and impacts on state facilities within city limits would remain significant after implementation of plan policies and the adoption of identified mitigation measures in general plan EIRs, where applicable. This impact would be significant and unavoidable.

Impact TRA-2: Safety hazards due to design features, incompatible uses (e.g., hazards to vehicular, pedestrian, and bicycle transit), or inadequate emergency access (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The Local Agencies, except the City of Biggs, determined in their general plan EIRs that land development activities and construction of any associated infrastructure project and transportation projects would not result in significant impacts related to traffic safety hazards or inadequate emergency access. The City of Biggs (2014b) determined that implementation of its general plan would result in significant and unavoidable impacts on traffic hazards and emergency access because funding has not been secured to improve existing roadway design deficiencies, and the City is uncertain as to whether roadway connectivity improvements proposed in the general plan would be implemented simultaneously with future development(City of Biggs 2014b).

The construction of state road projects within these jurisdictions would need to comply with Caltrans requirements and BMPs summarized in Appendix D; compliance would likely reduce the significant and unavoidable impacts associated with the implementation of the general plans because they would maintain the safety of roads during construction and maintain emergency access during construction.

The construction and recurring maintenance activities of the water and irrigation districts would not result in safety hazards or inadequate emergency access as these activities would not be located on the existing roadway system and thus would not result in a change in the existing roadway system or a modification to the existing roadway system such that emergency vehicles could not have access. Furthermore, maintenance of water and irrigation district service roads would actually maintain the existing service roads such that hazards or inadequate emergency access would not occur.

NEPA Determination: Alternative 1 would result in significant impacts related to traffic safety hazards or inadequate emergency access within the city of Biggs. Implementation of policy

provisions in the proposed general plan would reduce the impacts. However, funding has not been secured to improve existing roadway design deficiencies, and it is uncertain as to whether roadway connectivity improvements proposed in the general plan would be implemented simultaneously with future development. Therefore, impacts would remain significant after implementation of plan policies. Because no other feasible mitigation would reduce these impacts, the impacts would be significant and unavoidable.

CEQA Determination: Alternative 1 would result in significant impacts related to traffic safety hazards or inadequate emergency access within the City of Biggs. Implementation of policy provisions in the proposed general plan would reduce the impacts. However, funding has not been secured to improve existing roadway design deficiencies, and it is uncertain as to whether roadway connectivity improvements proposed in the general plan would be implemented simultaneously with future development. Therefore, impacts would remain significant after implementation of plan policies. Because no other feasible mitigation would reduce these impacts, the impacts would be significant and unavoidable.

Impact TRA-3: Potential conflicts with transportation plans, programs, and planned projects (NEPA: no impact; CEQA: no impact)

A number of transportation projects are proposed in the Plan Area, including programmed and future projects in the BCAG's RTP, planned projects in the County/city TIPs and capital improvement plans (CIPs), and local projects that may not be specifically listed. Because Alternative 1 would incorporate the infrastructure and transportation projects adopted in the local general plans and regional transportation plans, this alternative would not conflict with transportation plans, programs, and planned projects developed by the Local Agencies.

NEPA Determination: Alternative 1 would not conflict with transportation plans, programs, and planned projects because it would incorporate the infrastructure and transportation projects adopted in the local general plans and transportation plans. There would be no impact. No mitigation is required.

CEQA Determination: Alternative 1 would not conflict with transportation plans, programs, and planned projects because it would incorporate the infrastructure and transportation projects adopted in the local general plans and transportation plans. There would be no impact. No mitigation is required.

Alternative 2—Proposed Action

Under Alternative 2, covered activities would include the existing, planned, and proposed land uses over which the Permit Applicants have land use authority; state and local transportation projects; maintenance of water delivery systems (e.g., WCWD canals and similar delivery systems); habitat restoration, enhancement, and management actions (conservation measures); and adaptive management and monitoring activities. Most covered activities would require individual permits and approvals pursuant to the Local Agencies' general plans and land use regulations or the requirements of the implementing agency (such as Caltrans and irrigation districts) and would undergo subsequent project-level CEQA review and relevant NEPA review for construction and operation-related impacts; some covered activities, however, may be exempted from this environmental review requirement due to project characteristics, including small projects or infill project.

Impact TRA-1: A substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Development associated with implementation of the Local Agencies' general plans, Caltrans projects, and water and irrigation district activities would result in the same effects on traffic volumes as described in Impact TRA-1 under Alternative 1. Therefore, a substantial increase in traffic is expected compared to existing traffic volumes and the capacity of the roadway system.

Implementation of the conservation strategy and conservation measures would not result in a significant increase in traffic over existing conditions. Short-term traffic impacts could result from construction-related activities associated with restoration. Such activities would likely include grading and fill operations and construction of drainage infrastructure, requiring the movement of heavy equipment on roadways during limited construction periods. The number of vehicle trips generated by these activities is expected to entail traffic volumes similar to those associated with current farming and grazing activities. Furthermore, construction projects would generally be small, of limited duration, and located in areas with little traffic. Consequently, they would not result in a significant increase in traffic over existing conditions. Long-term traffic impacts associated with implementation of the conservation strategy and conservation measures could result from public access to individual conservation lands for recreational or educational purposes. Public access to the conservation lands is not expected to result in a significant increase in traffic because such access would be limited to uses compatible with the preservation and enhancement of natural communities—in other words, heavy recreational uses would be disallowed. Long-term traffic impacts associated with conservation measures could also result from normal operations and maintenance activities in the conservation areas and conservation-related facilities and infrastructures. Such activities are expected to include planting trees, seeding grassland areas, removing fences, adding or resizing culverts, transporting livestock, and mowing fuel breaks. Long-term traffic impacts associated with operations and maintenance activities in the conservation areas and conservation-related facilities and infrastructures would be expected to be minimal.

NEPA Determination: The impact determination would be the same as Alternative 1 for development associated with implementation of the Local Agencies' general plans. The conservation strategy would not result in a substantial increase in traffic as short-term and long-term traffic generation is not expected to substantially differ from the No Action alternative. The impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 1 for development associated with implementation of the Local Agencies' general plans; however, the conservation strategy would not result in a substantial increase in traffic short-term and long-term traffic generation is not expected to substantially differ from the No Action alternative. The impact would be significant and unavoidable.

Impact TRA-2: Safety hazards due to design features, incompatible uses (e.g., hazards to vehicular, pedestrian, and bicycle transit), or inadequate emergency access (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts associated with implementation of the general plans, Caltrans projects, and water and irrigation district activities are the same as those identified in the discussion of Impact TRA-2 under Alternative 1. The Local Agencies, except the City of Biggs, determined that implementation of their general plans would not result in significant impacts on traffic hazards or emergency access.

However, the City of Biggs determined that significant and unavoidable impacts would result because funding has not been secured for roadway improvements whether planned roadway improvements would coincide with future development is uncertain.

Implementation of the conservation strategy and conservation measures would not result in a significant increase in traffic, as discussed in Impact TRA-1. Construction projects related to the conservation strategy, traffic related to public use of conservation areas, and operation and maintenance activities in the conservation areas and conservation-related facilities and infrastructures would generally be small, of limited duration, and located in areas with little traffic.

NEPA Determination: Like Alternative 1, Alternative 2 would result in significant impacts related to traffic safety hazards or inadequate emergency access within the City of Biggs. Impacts would be reduced but would remain significant after implementation of Biggs general plan policies. The conservation strategy would not result in significant traffic impacts. Because no other feasible mitigation would reduce the impacts identified in the Biggs General Plan EIR, the impacts would be significant and unavoidable.

CEQA Determination: Like Alternative 1, Alternative 2 would result in significant impacts related to traffic safety hazards or inadequate emergency access within the City of Biggs. Impacts would be reduced but would remain significant after implementation of Biggs general plan policies. The conservation strategy would not result in significant traffic impacts. Because no other feasible mitigation would reduce the impacts identified in the Biggs General Plan EIR, the impacts would be significant and unavoidable.

Impact TRA-3: Potential conflicts with transportation plans, programs, and planned projects (NEPA: less than significant with mitigation; CEQA: less than significant with mitigation)

The impacts associated with the proposed transportation projects within the Plan Area and potential conflicts with transportation plans, programs, and planned projects are the same as those disclosed in the discussion of Impact TRA-3 under Alternative 1, and no conflicts are expected. A number of transportation projects are proposed in the Plan Area, including programmed and future projects in the BCAG's RTP, Caltrans District 3 planned improvements, planned projects in the County/city TIPs and CIPs, and local projects that may not be specifically listed. Many of the transportation projects identified would require only minor additional right-of-way or would be conducted within existing rights-of-way; these would have minimal potential to conflict with land acquisition objectives of the conservation strategy. However, some transportation projects are still conceptual and only general information on alignments or construction locations has been developed. The establishment of conservation areas in areas where land may be required for transportation project rights-of-way could impair construction of these transportation projects; similarly, the construction of transportation projects in such areas could limit their suitability as conservation areas. Consequently, this impact associated with the conservation strategy would be considered significant as there could be potential conflicts with transportation plans. However, implementation of Mitigation Measure TRA-3 would reduce this impact to a less-than-significant level.

NEPA Determination: The impact determination would be the same as Alternative 1 for development associated with implementation of the Local Agencies' general plans. The establishment of conservation areas in areas where land may be required for transportation project rights-of-way could impair construction of these transportation projects; similarly, the construction of transportation projects in such areas could limit their suitability as conservation areas.

Consequently, the impact would be significant. Implementation of Mitigation Measure TRA-3 would reduce this impact to a less-than-significant level.

CEQA Determination: The impact determination would be the same as Alternative 1 for development associated with implementation of the Local Agencies' general plans. The establishment of conservation areas in areas where land may be required for transportation project rights-of-way could impair construction of these transportation projects; similarly, the construction of transportation projects in such areas could limit their suitability as resource preserves. Consequently, the impact would be significant. Implementation of Mitigation Measure TRA-3 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-3: Avoid acquisition of conservation lands that are within or adjacent to proposed alignments of programmed or planned transportation projects

As part of the process of identifying suitable sites for land acquisition under the conservation strategy, the Implementing Entity will avoid lands that are within or adjacent to proposed alignments for the programmed or planned transportation projects identified in BCAG's MTP and RTIP and Caltrans District 3 roadway improvement projects. Lands within or adjacent to the proposed rights-of-way should not be considered for acquisition unless it is determined that, as part of acquisition, adequate avoidance and minimization measures could be developed and implemented to permit construction of the proposed project and avoid conflicts with the goals and objectives of the proposed Plan.

Alternative 3—Reduced Development/Reduced Fill

Alternative 3 is similar to Alternative 2 except that it uses the various general plan EIR reduced development alternatives as described in Chapter 2, *Proposed Action and Alternatives*, to create a single reduced development footprint. Covered activities under this alternative would be similar to those described in the BRCP but would be limited to the reduced development footprint for a reduced permit term of 30 years. The reduced footprint and reduced land conservation would result in fewer built structures and less ground disturbance.

It is anticipated that under Alternative 3, fewer acres of natural communities would be conserved because reduced development would provide reduced funding for the conservation strategy. However, it is anticipated that the conservation measures would be the same because the reduction of fill would be achieved through the reduced development footprint of the Local Agencies' general plans rather than through modification of the conservation measures. Consequently, the impacts related to implementation of the conservation strategy and conservation measures would be the same as under Alternative 2.

Impact TRA-1: A substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Development specified in Alternative 3 would result in similar impacts on traffic volumes and roadway capacity as would Alternative 2, but the severity of these impacts would be less because of the reduction in overall development. Nevertheless, because of the increased traffic volumes that would be associated with this alternative, this impact would be significant and unavoidable. The transportation-related effects associated with implementation of the conservation strategy and

conservation measures would be similar to, but slightly less than, those under Alternative 2 because it is anticipated there would be fewer acres preserved.

NEPA Determination: Transportation-related effects associated with Alternative 3 would be similar to, but slightly less than, those under Alternative 2 as a result of less development and fewer acres preserved. The impact would be significant and unavoidable.

CEQA Determination: Transportation-related effects associated with Alternative 3 would be similar to, but slightly less than, those under Alternative 2 as a result of less development and fewer acres preserved. The impact would be significant and unavoidable.

Impact TRA-2: Safety hazards due to design features, incompatible uses (e.g., hazards to vehicular, pedestrian, and bicycle transit), or inadequate emergency access (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts under Alternative 3 are similar to those under Alternative 2 even though the impacts would be of a lesser extent when compared with Alternative 2 because less development and fewer acres of conservation land are expected under this alternative. The Local Agencies, except the City of Biggs, determined that implementation of their general plans would not result in significant impacts on traffic hazards or emergency access. However, the City of Biggs determined that significant and unavoidable impacts would result because funding has not been secured for roadway improvements whether planned roadway improvements would coincide with future development is uncertain.

NEPA Determination: The impact determination would be the same under Alternative 3 as for Alternative 2. The impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same under Alternative 3 as for Alternative 2. The impact would be significant and unavoidable.

Impact TRA-3: Potential conflicts with transportation plans, programs, and planned projects (NEPA: less than significant with mitigation; CEQA: less than significant with mitigation)

The potential for conflicts with transportation plans, programs, and planned projects associated with implementation of the conservation strategy and conservation measures would be the same as under Alternative 2. The establishment of conservation areas in areas where land may be required for transportation project rights-of-way could impair construction of these transportation projects; similarly, the construction of transportation projects in such areas could limit their suitability as conservation areas.

NEPA Determination: Similar to under Alternative 2, the potential for conflicts with transportation plans, programs, and planned projects would be significant; however, implementation of Mitigation Measure TRA-3 would reduce this impact to a less-than-significant level.

CEQA Determination: Similar to under Alternative 2, the potential for conflicts with transportation plans, programs, and planned projects would be significant; however, implementation of Mitigation Measure TRA-3 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-3: Avoid lands that are within or adjacent to proposed alignments of programmed or planned transportation projects

Alternative 4—Greater Conservation

Alternative 4 would be similar to Alternative 2 except that under Alternative 4, the conservation strategy would include the conservation of an additional 9,850 acres of grassland and 35,310 acres of riceland. Alternative 4 would include the same conservation measures as Alternative 2, and all other acreage protection targets for natural communities/land types would be the same as described under Alternative 2.

Under Alternative 4, covered activities such as urban and rural land developments and construction, operation, and maintenance of various infrastructure projects would be the same as under Alternative 1.

Impact TRA-1: A substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

Development associated with implementation of the Local Agencies' general plans would result in the same effects on traffic volumes as Alternative 1 and is expected to substantially increase traffic compared to existing traffic volumes and the capacity of the roadway system. The transportation-related effects associated with implementation of the conservation strategy and conservation measures would be similar to those under Alternative 2 and would not result in a substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact TRA-2: Safety hazards due to design features, incompatible uses (e.g., hazards to vehicular, pedestrian, and bicycle transit), or inadequate emergency access (NEPA: significant and unavoidable; CEQA: significant and unavoidable)

The impacts under Alternative 4 are the same as those under Alternative 2 despite the increased area of conserved grassland and riceland. The Local Agencies, except the City of Biggs, determined that implementation of their general plans would not result in significant impacts on traffic hazards or emergency access. However, the City of Biggs determined that significant and unavoidable impacts would result because funding has not been secured for roadway improvements whether planned roadway improvements would coincide with future development is uncertain.

NEPA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

CEQA Determination: The impact determination would be the same as Alternative 2; the impact would be significant and unavoidable.

Impact TRA-3: Potential conflicts with transportation plans, programs, and planned projects (NEPA: less than significant with mitigation; CEQA: less than significant with mitigation)

The potential for conflicts with transportation plans, programs, and planned projects associated with implementation of the conservation strategy and conservation measures would be similar to

those described in Impact TRA-3 under Alternative 2. However, the increased area of conserved grassland and ricelands increases the potential for conflicts to arise when compared to Alternative 2.

NEPA Determination: Though the potential for conflicts with transportation plans, programs, and planned projects would be similar to those under Alternative 2, the increased area of conserved grassland and riceland increases the potential for conflicts to arise. Implementation of Mitigation Measure TRA-3 would reduce this significant impact to a less-than-significant level.

CEQA Determination: Though the potential for conflicts with transportation plans, programs, and planned projects would be similar to those under Alternative 2, the increased area of conserved grassland and riceland increases the potential for conflicts to arise. Implementation of Mitigation Measure TRA-3 would reduce this significant impact to a less-than-significant level.

Mitigation Measure TRA-3: Avoid lands that are within or adjacent to proposed alignments of programmed or planned transportation projects

15.2.4 Cumulative Analysis

Methods and Approach

The cumulative analysis for transportation impacts is a qualitative evaluation using the past, present, and reasonably foreseeable future projects listed in Chapter 3, Section 3.3.2, under *Cumulative Impacts*; the general plan EIR impact determinations for cumulative impacts, where applicable; and the impact determinations identified above for the various alternatives.

This analysis determines whether the covered activities would result in a cumulatively considerable incremental contribution that, when combined with the past, present, and reasonably foreseeable future projects, would result in a cumulatively significant impact.

Cumulative Impacts

Alternative 1—No Action (No Plan Implementation)

The Local Agencies determined that cumulatively considerable and significant impacts on the regional and local roadway system in the Plan Area would result from implementation of the general plans (development and associated infrastructure and transportation projects). Therefore, past, present, and reasonably foreseeable future projects—including implementation of the general plans—would result in cumulatively considerable and significant impacts on the transportation system.

Alternative 2—Proposed Action

The Local Agencies determined that cumulatively considerable and significant impacts on the roadway systems in their jurisdictions would result from implementation of Alternative 2. Accordingly, past, present, and reasonably foreseeable future projects—including implementation of the general plans—would result in cumulatively considerable and significant impacts on the transportation system. The conservation strategy and conservation measures are not expected to result in a substantial increase in traffic volumes or to degrade traffic operation of the existing roadway system and therefore would not contribute to the cumulatively considerable and

significant impacts on the transportation system from the other covered activities (i.e., development) Therefore, overall, Alternative 2 is expected to result in an cumulatively considerable and significant impacts.

Alternative 3—Reduced Development/Reduced Fill and Alternative 4—Greater Conservation

Although the extent of conservation associated with implementation of the conservation strategy and conservation measures varies with these two alternatives, the mechanism and implications associated with effects on transportation are the same as under Alternative 2. Neither Alternative 3 nor Alternative 4 would result in a cumulatively considerable contribution to cumulative impacts on transportation.

15.3 References

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Chapter 16

Other Required NEPA and CEQA Analyses

NEPA requires an EIS and CEQA requires an EIR to evaluate a number of other types of environmental impacts in addition to those already addressed in the resource chapters. The analysis required under NEPA and CEQA is in many cases similar; therefore, the NEPA and CEQA required analyses in this section are combined, as appropriate.

16.1 Significant and Unavoidable Impacts

Tables ES-2 and ES-3 and Appendix C summarize the significant and unavoidable impacts and their determinations, as disclosed in Chapters 4 through 15 of this EIS/EIR, for the proposed action. The resources are listed below.

- Agricultural Resources as a result of converting agricultural lands to urban land uses or native habitat, primarily due to covered activities, but also due to the conservation strategy, within Local Agency jurisdictions and the Plan Area.
- Air Quality and Climate Change as a result of conflicts with the Northern Sacramento Valley Planning Area 2006 Air Quality Attainment Plan due to covered activities for the cities of Gridley, Oroville, and Biggs (i.e., urban land uses identified in the Local Agencies' general plans); violations of air quality standards as a result of covered activities for all Local Agencies; causing cumulatively considerable net increases in criteria pollutants as a result of covered activities for all Local Agencies; generation of greenhouse gas emissions as a result of covered activities for Local Agencies but also due to the conservation strategy; and, exposing sensitive receptors to objectionable odors as a result of covered activities for the cities of Oroville and Gridley.
- Hydrology, Water Resources, and Water Quality as a result of exposing structures and people to loss, injury, death involving flooding due to covered activities within all Local Agency jurisdictions (i.e., urban land uses identified in Local Agencies' general plans).
- Noise as a result of substantial and permanent increase in ambient noise levels above levels currently existing due to covered activities (i.e., urban land uses identified in Local Agencies' general plans) and as a result of substantial temporary or periodic increase in ambient noise levels associated with construction and agricultural uses within the city of Biggs.
- Public Services and Utilities as a result of the increased use and need of public services and utilities due to covered activities within the city of Gridley (i.e., urban land uses).
- Recreation and visual resources as a result of increased use of recreational facilities and substantial changes to the visual character and quality of the area due to covered activities within the city of Gridley (i.e., urban land uses).
- Population as a result of substantial increases population growth in the cities of Gridley, Biggs, and Oroville due to the implementation of covered activities (i.e., urban land uses).
- Environmental Justice as a result of disproportionately high and adverse effects on minority and low-income populations in the Plan Area due to covered activities on agricultural resources, air quality, hydrology and water quality, noise, public services and utilities, recreation and visual

resources, and transportation. Implementation of the conservation strategy would also contribute to the significant and unavoidable impacts on agricultural resources and air quality.

- Transportation as a result of a substantial increase in traffic compared to existing traffic volumes and the capacity of the roadway system due to covered activities within all Local Agency jurisdictions (i.e., urban land uses); and as a result of increasing traffic safety hazards and inadequate emergency access due to covered activities within the city of Biggs.

16.2 Short-Term Uses of the Environment versus Maintenance and Enhancement of Long-term Productivity (NEPA)

In accordance with NEPA, Section 102 (40 USC 4332), an EIS must include a discussion of the relationship between the short-term uses of the environment and the maintenance and enhancement of long-term productivity. The proposed action is fundamentally designed to ensure that the long-term productivity of the environment is ensured, despite the short-term uses of the environment. In the short-term, a wide range of urban development and infrastructure projects would be carried out under the terms and conditions of the proposed action. Although these activities would result in a loss of habitat and the take of sensitive species, these activities would be undertaken pursuant to the terms of the proposed action. The proposed action provides for a comprehensive mechanism to avoid, minimize, and mitigate for impacts on sensitive species and natural communities from covered activities.

16.3 Irreversible and Irretrievable Commitments of Resources (NEPA)/Significant Irreversible Environmental Changes (CEQA)

In accordance with NEPA, Section 102 (40 USC. 4332), an EIS must explain which environmental impacts of the proposed action are irreversible or would result in an irreversible commitment of resources, such as consumption of fossil fuels. CEQA similarly requires an EIR to discuss uses of nonrenewable resources that would occur during the initial phases and the continued operation of a project (State CEQA Guidelines Section 15126.2[c]).

The proposed action would result in an irreversible commitment of fossil fuel resources for habitat restoration and enhancement activities, as well as irreversible commitment of fossil fuels to perform surveys, manage the administrative functions of the proposed action, and maintain and operate the preserve system. Preserves would be established under the proposed action to provide for ecosystem viability and species enhancement; however, establishment of preserves, whether purchased in-fee or through easements, would not be considered an irreversible commitment of resources since this use would not preclude modifications or adjustments in the use in the future.

No specific development activities are authorized under the proposed action that would result in the irreversible commitment of resources; however, urban development as described by the Local Agencies' general plans is included as a covered activity. The conversion of existing agricultural or

other land to urban uses is considered an irreversible environmental commitment. Conversion of land to urban uses is a covered activity by the proposed action, but such conversion is not specifically authorized by the proposed action. The irreversible commitment of lands to urban uses and of nonrenewable and renewable resources have been evaluated in the Local Agencies' general plan EIRs and incorporated into the analysis, as described below.

- **Butte County.** Implementation of the general plan would result in the conversion of vacant land to other land uses and the intensification of underutilized areas. This development would constitute a long-term commitment of these areas to urban-type land uses. In addition, construction of buildings and infrastructure in the general plan area would irretrievably commit nonrenewable resources, both from within and outside the county. These non-renewable resources include mined materials, such as sand, gravel, steel, lead, copper, and other metals. Implementation of the general plan also would commit the consumption of fossil fuels, natural gas, and gasoline, as well as commit limited, renewable resources, such as lumber and water for the long term. (Butte County 2010.)
- **City of Biggs.** Implementation of the general plan could result in the conversion of undeveloped properties to residential, commercial, office, public, and recreational uses. Subsequent development under the general plan would constitute a long-term commitment to these uses. Development of the city would irretrievably commit energy and building materials to construction and maintenance. Renewable, nonrenewable, and limited resources including water, oil, gasoline, lumber, sand and gravel, asphalt, steel, and similar materials. (City of Biggs 2013.)
- **City of Chico.** Implementation of the general plan would result in the conversion of undeveloped and/or underutilized residentially zoned properties to other uses. It is unlikely that circumstances would arise that would justify the return of those sites to their original condition. Development of the city as allowed by the general plan would irretrievably commit building materials and energy to construction and maintenance. Renewable, nonrenewable, and limited resources that would likely be consumed include oil, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. (City of Chico 2010.)
- **City of Gridley.** The land use designations proposed in the general plan would result in the commitment of allowable land uses to certain areas for the foreseeable future. Specifically, it would allow the conversion of agriculture to other land uses, thus resulting in an irreversible environmental change. Irreversible changes would also likely occur as a result of future excavation, grading, and associated construction activities for development of land uses within the general plan planning area. The construction and operation of future urban development would consume renewable and nonrenewable resources, such as energy and water, as well as concrete, glass, plastic, and petroleum products. These resources would also be irreversibly committed as urban development occurs. (City of Gridley 2009.)
- **City of Oroville.** Development allowed under the general plan would result in the conversion of vacant land to commercial and residential uses and the intensification of underutilized area. This would constitute a long-term commitment to urban-type land uses. Development would also irretrievably commit nonrenewable resources associated with the construction and operation of urban buildings and infrastructure, including sand, gravel, steel, lead, copper, and other materials. It would also represent a long-term consumption of fossil fuels, natural gases, and gasoline, as well as renewable resources such as lumber and water. (City of Oroville 2008.)

Due to the irreversible commitment of resources and significant irreversible environmental changes that would occur as a result of general plan implementation, irreversible commitment of resources and significant irreversible environmental changes are expected to occur under the proposed action.

16.4 Growth Inducement (CEQA)

CEQA requires that an EIR discuss the extent to which a proposed project would directly or indirectly foster economic or population growth or the construction of new housing, including removing obstacles to growth that may result in significant environmental effects (State CEQA Guidelines Section 15126.2[d]). The proposed action includes covered activities that would have direct growth-inducing impacts. The proposed action also includes covered activities that would not directly cause growth to occur, but rather would accommodate growth that is already planned in the Local Agencies' general plans.

Future development that is covered under the proposed action and assessed as part of the proposed action impact analysis is considered planned development because it is derived directly from the Local Agencies' general plans and from transportation plans adopted by regional transportation authorities. The direct and indirect impacts of this planned growth and any mitigation requirements is provided under the general plan and transportation EIRs for each jurisdiction, as well as under project-specific environmental compliance that would be required for specific developments in the future. In general, the local jurisdictions made the following growth inducing findings in the various general plan EIRs.

- **Butte County.** Implementation of the general plan would directly induce population, employment, and economic growth by allowing development in areas not currently designated for urban growth. However, the proposed general plan includes policies to control how growth occurs within the county and to encourage infill development. It also includes policies that would maintain the rural character of the county and minimize the environmental impacts of anticipated growth. Indirect growth-inducing impacts would be growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by a new project allowed under the general plan (Butte County 2010).
- **City of Biggs.** Implementation of the general plan would induce population and job growth in the city. The general plan may indirectly induce growth by removing an obstacle to additional growth and development, such as removing a constraint on a required public service. Proposed roadway improvements would support such growth in the city's planning area. Infrastructure development, including extension of infrastructure into unserved areas, would be provided for under the general plan. Therefore, the general plan is considered growth inducing (City of Biggs 2013).
- **City of Chico.** The intent of the general plan is to accommodate anticipated growth through compact, infill, and mixed use development, as well as to focus redevelopment along transit corridors and at key locations in the city. The general plan would provide for anticipated growth, would minimize outward expansion of the city's boundaries, and would retain the current Butte County greenline. Thus, growth accommodated under the general plan would be confined to the immediate Chico area and would avoid growth effects of sprawl development patterns or induced growth on parcels adjacent to the city (City of Chico 2010).

- **City of Gridley.** The general plan intends to provide for and address future growth and conservation in the city and its planning area. Indirect growth-inducing effects would result, in part, from changes in the goals and policies of the general plan, as they provide the framework to accommodate future growth; thus, the general plan is considered growth inducing (City of Gridley 2009).
- **City of Oroville.** The general plan allows for additional growth, however, no direct impacts would occur as a result of implementing the plan, since the general plan does not ensure that development in the planning area would occur. Although the general plan does allow for additional growth, it includes policies which focus new development within existing city limits and sphere of influence and would control growth such that it would maintain and enhance the character of Oroville (City of Oroville 2008).

The 50-year term of the proposed action and take permits would extend beyond the planning horizon of the local general plans. The proposed action does not induce future growth since other factors (e.g., updates to the general plans) would be more accommodating to growth than the attainment of take authorization.

The proposed action would provide a streamlined mechanism for specific projects to comply with ESA and CESA. An improved permitting mechanism would not remove a barrier to growth but would perhaps lower it. Under the proposed action, permit approval would be easier for development applicants to secure, resulting in improved development efficiencies and potential development cost savings.

The efficiencies and cost savings under the proposed action would affect different types of development projects differently. For example, development of lands where there are few species concerns would not be substantially affected by the proposed action since permitting without the proposed action would be a minor issue. Projects with a greater level of species concerns would be most affected by implementation of the proposed action since these projects would benefit most by streamlined permit approvals. Nevertheless, without the proposed action, these projects would presumably still be able to proceed under the existing case-by-case permit approval process. Given the current rate of development and growth being experienced in the Plan Area, the cost of issuing permit approvals on a project-by-project basis does not appear to be a noticeable disincentive to development. Thus, the proposed action may influence the speed with which development could proceed, but not the extent of development. The speed of development would be more substantially influenced by larger economic conditions, population growth, housing stocks, as well as local land use and growth-management controls.

16.5 Environmentally Preferable/Superior Alternative

The State CEQA Guidelines (Section 15126.6([e][2])) require that an environmentally superior alternative be identified from the alternatives considered. The *environmentally superior alternative* is generally defined as the alternative that would result in the least adverse environmental impacts on the project site and the surrounding area. NEPA regulations require that when an agency has concluded an EIS and the decision is recorded in a public Record of Decision (ROD) (40 CFR Section 1505.2), the ROD needs to “identify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable” (40 CFR Section 1505.2[b]). The agency must discuss all factors essential to the agency decision and

discuss how those factors influenced the agency's decision (40 CFR Section 1505.2[b]). The *environmentally preferable and superior alternative* is the alternative that would result in the least damage to the environment. Based on the analysis presented in Chapters 4 through 15, the environmentally preferable/environmentally superior alternative is the proposed action. The proposed action would provide the most comprehensive approach to habitat conservation among the alternatives, with the greatest potential to provide long-term benefits to the covered species.

16.6 Executive Orders

Executive orders that are relevant to the proposed action are described below.

Executive Order 11988—Floodplain Management

Executive Order 11988, Floodplain Management, requires federal agencies to prepare floodplain assessments for proposed projects located in or affecting floodplains. An agency proposing to conduct an action in a floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If the only practicable alternative involves siting in a floodplain, the agency must minimize potential harm to or development in the floodplain and explain why the action is proposed in the floodplain.

The proposed action includes covered activities that would allow future development that may occur in floodplains within the incorporated cities. This development is planned development that has been evaluated, and mitigation measures have been identified in the Local Agencies' general plan EIRs and incorporated in Chapter 9, *Hydrology, Water Resources, and Water Quality*.

Executive Order 11990—Protection of Wetlands

Executive Order 11990, Protection of Wetlands, requires federal agencies to prepare wetland assessments for projects located in or affecting wetlands. Agencies must avoid undertaking new construction in wetlands unless no practicable alternative is available and the proposed action includes all practicable measures to minimize harm to wetlands.

The proposed action has been designed to address impacts on federal and state jurisdictional waters, including wetlands, and on state jurisdictional streams and lakes. Specific biological goals and objectives for wetlands and streams have been developed, and the conservation strategy includes a range of specific measures to avoid and mitigate for impacts on these resources. Specific measures included in the proposed action include the following.

- **CM1: Protect Natural Communities.** This conservation measure provides the mechanism and guidance for the acquisition of lands and the establishment of the BRCP conservation lands system that will meet the natural community and covered species habitat protection biological objectives presented in Section 5.3 of the BRCP. This includes the protection of wetlands and waters of the United States.
- **CM4: Develop and Implement Site Specific Wetland and Riparian Restoration Plans.** The BRCP Implementing Entity will restore 579 acres of riparian forest habitat, 34 acres of riparian willow scrub, 121 acres of emergent wetland, and 307 acres of vernal pool and other seasonal wetlands in the quantities indicated for each of the CAZs. Restoration will be conducted on BRCP

conservation lands, be designed to support habitat for covered species, and be dominated by native plant species that are typical of these riparian and wetland habitat types in the Plan Area.

- **CM5: Enhance Protected Natural Communities for Covered Species.** The BRCP Implementing Entity will prepare and implement management plans for protected natural communities and covered species habitats supported by those communities. The communities include riparian natural community, wetland natural community, and aquatic natural community.
- **AMM1: Conduct Planning Surveys.** Project proponents are required to delineate CWA Section 404 jurisdictional wetlands and other waters of the United States within project sites. Project proponents are required to conduct delineate Section 1602 Fish and Game Code jurisdictional riparian habitat within project sites. All covered species planning surveys will be conducted during the specified time period indicated by the BRCP. All planning surveys will be conducted by qualified and permitted (as necessary) biologists using the methods indicated in the BRCP or alternative methods approved by the BRCP Implementing Entity, USFWS, and CDFW.
- **AMM6: Establish Permanent Habitat Buffers along Stream and Riparian Corridors.** Residential, commercial, public, and industrial facility projects will be designed to include a minimum 100-foot permanent habitat buffer zone (set-back easement) from the top of bank along both sides of all natural perennial stream corridors as defined in the BRCP GIS database and a minimum 25-foot permanent habitat buffer zone from the edge of existing or restored riparian forest and scrub if riparian forest/scrub is wider than 75 feet from the top of the stream bank. For major water conveyance channels that support woody riparian vegetation a minimum 25-foot permanent habitat buffer zone will be established from the edge of the existing or restored riparian forest and scrub. Permanent habitat buffers apply to stream and riparian habitat areas that remain following construction of permanent development projects (note the allowable level of impacts is identified in the BRCP).

These measures, implemented in concert, would provide adequate protection for existing wetlands, as well as restore and create additional wetlands in the Plan Area.

Executive Order 12898—Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their actions on minorities and low-income populations and communities. Potential impacts related to environmental justice are discussed in Chapter 14, *Population and Housing, Socioeconomics, and Environmental Justice*.

16.7 References

Butte County. 2010. *Butte County General Plan 2030 Final Environmental Impact Report*. August 30. Oroville, CA. Available: <<http://www.buttegeneralplan.net/>>. Accessed: February 25, 2013. City of Biggs. 2013. *Biggs General Plan Draft Environmental Impact Report*. October. Prepared for the City of Biggs by PMC, Chico, CA.

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Chapter 17

Consultations and Public Outreach

This chapter provides an overview of the agency consultation and other regulatory requirements and the scoping and public involvement process for the proposed action.

17.1 Consultation and Requirements

17.1.1 Federal Endangered Species Act

Threatened and endangered species are listed under the provisions of Section 4 of ESA; prohibitions in Section 9 provide for substantial protection of these listed species. Through Section 7 and Section 10 processes, USFWS and NMFS ensure that activities undertaken by federal agencies and nonfederal entities do not result in jeopardy of listed species or adverse modification of critical habitat.

If federally listed species may be affected, the federal lead agency must informally consult with USFWS and/or NMFS to assess the consequences of its actions and to determine whether formal consultation is warranted. USFWS is proposing to issue a Section 10 ITP, which is a federal action that triggers Section 7 consultation requirements under the proposed action. As the federal action agency for the proposed action and permit, USFWS will consult internally pursuant to Section 7. USFWS will initiate internal consultation following the submission of the Section 10 permit application package by the Habitat Conservation Plan Association. If USFWS concludes that the proposed action is not likely to adversely affect a listed species, then no formal consultation will be conducted and no BO will be prepared. If the proposed action is likely to result in adverse effects on a listed species, then USFWS will prepare a biological opinion describing how the proposed action will affect the listed species. The USFWS's opinion will be either a *jeopardy opinion* or a *no-jeopardy opinion*. A jeopardy opinion concludes that the proposed action would jeopardize the continued existence of a federally listed species or would adversely modify designated critical habitat. Under this finding, the BO must suggest "reasonable and prudent alternatives" that would avoid jeopardy. If the USFWS issues a no-jeopardy opinion, this opinion may include "reasonable and prudent measures" to minimize adverse effects on listed species and an "incidental take statement" that specifies the allowable amount of take that may occur as a result of the proposed action.

17.1.2 National Historic Preservation Act

Section 106 of the NHPA requires federal agencies to inventory historic properties and evaluate the eligibility of those properties for listing in the NRHP. The potential effects of the proposed action or action alternatives on cultural resources, including properties listed or eligible for the NRHP, and any necessary measures to avoid or reduce impacts on these resources, are described in Chapter 7, *Cultural Resources*. As presented in that chapter, the proposed action is not expected to result in any significant effects on cultural resources. And a cultural resources management plan would be developed as a basis for establishing a programmatic memorandum of agreement between USACE, SHPO, and ACHP for compliance with the requirements of the NHPA Section 106 process such that no NRHP-listed eligible or potentially eligible resources would be affected.

17.1.3 Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) of 1981 requires federal agencies to consider project alternatives that minimize or avoid adverse impacts on important farmland. As described in Chapter 4, *Agricultural and Forestry Resources*, the FPPA does not apply to federal permitting (7 CFR § 658.2[a][1][i]).

17.1.4 Clean Air Act

Section 176(c) of the Clean Air Act requires federal agencies to ensure that their actions are consistent with the Clean Air Act and with federally enforceable state implementation plans (SIPs) (air quality management plans). The conformity review process is intended to ensure that federal agency actions will not cause or contribute to new violations of any federal ambient air quality standards; will not increase the frequency or severity of any existing violations of federal ambient air quality standards; and will not delay the timely attainment of federal ambient air quality standards.

The proposed action is within an area designated by EPA as a partial non-attainment area for ozone and PM 2.5 and a maintenance area for CO. Consequently, to fulfill general conformity requirements, a General Conformity evaluation would be required to identify whether the total ozone, CO, and PM2.5 emissions for the action alternatives are subject to the General Conformity rule.

As described in Chapter 5, *Air Quality and Greenhouse Gases*, a conformity analysis was performed, and emissions were evaluated to determine if they would exceed the General Conformity *de minimis* thresholds. A conformity determination is not required, as it was concluded emissions would likely not exceed the *de minimis* thresholds.

17.1.5 Migratory Bird Treaty Act

Migratory birds are protected by USFWS under the provisions of the MBTA of 1916 as amended (16 U.S.C. Chapter 7, 703-712) which governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over utilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take. The Secretary of the Interior, in adopting regulations, is to consider such factors as distribution and abundance to ensure that take is compatible with the protection of the species. This guidance would be utilized in informal consultation on any such activities within the Plan Area for the proposed action.

17.2 Lead and Cooperating Agencies and Stakeholders

The BRCP EIS/EIR was prepared under the combined efforts of the following partners.

- USFWS
- NMFS

- USACE
- BCAG

BCAG is the CEQA lead agency. USFWS is the federal lead agency pursuant to NEPA. CDFW is a CEQA responsible and trustee agency. USACE and NMFS are cooperating agencies pursuant to NEPA. To comply with both CEQA and NEPA, these agencies combined efforts to notify stakeholders, the public, agencies, and tribes of the proposed permits and intent to prepare a joint EIS/EIR.

The BRCP was prepared under the combined efforts of the following partners (collectively known as the Permit Applicants).

- BCAG
- Butte County
- The Cities of Oroville, Chico, Biggs, and Gridley
- Western Canal Water District
- Biggs–West Gridley Water District
- Butte Water District
- Richvale Irrigation District
- Caltrans District 3

An organizational structure that allowed for input from stakeholders and the general public was created to develop the BRCP. This organizational structure consisted of a steering committee composed of the Permit Applicants and a stakeholder committee composed of parties with a broad range of interests in the Plan Area. These interests include biological resources, agriculture, land use and development, education, transportation, resource management, and water delivery. USFWS, NMFS, and CDFW provided input throughout the development of the BRCP and participated in steering committee and stakeholder committee meetings as well as in separate meetings with BCAG and the consultant team that helped draft the BRCP. Public involvement was encouraged through open stakeholder committee meetings, public workshops, newsletters, and a regularly updated website.

The BRCP was developed in coordination with the development of county and city general plans in the Plan Area, allowing for feedback between the BRCP and general plan processes. This feedback process identified opportunities and constraints and allowed for improvements in the general plans regarding the avoidance and minimization of impacts on biological resources and the development of open space and conservation elements that dovetail with the BRCP.

17.3 NEPA/CEQA Scoping

The NOI for the purposes of NEPA and the NOP for the purposes of CEQA served to inform the public of scoping meetings and the public comment period regarding the scope of the EIS/EIR (Appendix A). Additional details regarding meeting locations and times and the public comment period were provided in the NOI/NOP.

In compliance with the requirements set forth in CEQA, BCAG prepared an NOP. The NOP contained a brief description of the proposed action, the anticipated timeframe, probable environmental

effects, the date, time, and place of the public scoping meeting, and contact information. The NOP solicited participation in determining the scope and content of the environmental content of the EIR. On December 14, 2012, the NOP was sent to Responsible and Trustee Agencies and involved federal agencies, to the State Clearinghouse, and parties previously requesting notice in writing. The comment period on the NOP was December 14, 2012, to January 30, 2013.

In compliance with the requirements set forth in NEPA, USFWS prepared an NOI describing its intent to prepare an EIS, the proposed action, the possible alternatives, and relevant scoping meeting and contact information. The NOI was posted in the Federal Register, the United States Government's official noticing and reporting publication, on December 14, 2012. The official comment period for the NOI was December 14, 2012, to January 28, 2013.

17.3.1 Notifications, Publicity, and Scoping Meetings

Legal notices of the NOP were run in the Gridley Herald, Chico Enterprise, and Oroville Mercury on Friday, December 14, 2013. The NOI/NOP and information about scoping meetings were sent via mail to BCAG's BRCP distribution list, posted on the BRCP website (www.buttehcp.com), and sent via email to USFWS' media contacts and BCAG's email distribution list. Publication of the NOI in the Federal Register constitutes public notice of that document. Additionally, the USFWS posted a media release on its website.

On January 6, Chicoer.com published a news article about the BRCP and the scoping meetings at: http://www.chicoer.com/ci_22320033/conservation-plan-would-alter-butte-county-environmental-permit?IADID=Search-www.chicoer.com-www.chicoer.com.

Two scoping meetings were held during the NOI/NOP public comment period. They were held on Wednesday, January 9, 2013, at the following locations and times:

Oroville

Wednesday, January 9, 2013
2:00 p.m. to 4:00 p.m.
Oroville City Council Chambers
1735 Montgomery Street
Oroville, CA 95965

Chico

Wednesday, January 9, 2013
6:00 p.m. to 8:00 p.m.
BCAG Conference Room
2580 Sierra Sunrise Terrace, Suite 100
Chico, CA 95928

Nine people in total attended the two meetings. Three people attended the meeting in Oroville and six attended the meeting in Chico. Two comments, summarized below, were received from stakeholders regarding the EIS/EIRs during the scoping period.

- Nitrogen deposition in the Plan Area could contribute to growth of invasive plant species.
- Compliance with CEQA should be ensured in terms of adherence to laws related to historic resources and notification of appropriate tribal governments.

The Office of Planning and Research sent a courtesy letter to reviewing agencies to encourage them to submit comments on the scope and content of the NOP in a timely manner.

Chapter 18

List of Preparers

Name	Contribution/Role
ICF International	
Shahira Ashkar	Cultural Resources Review
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Dave Buehler	Noise Review
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Shannon Hatcher	Air Quality Review
Robin Hoffman	Cultural Resources
Julia Hooten	Public Services and Public Utilities
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David Lemon	Cultural Resources
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